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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on:

March 18, 2004, 06:15:34; Search time 36.7883 Seconds (without alignments) 492.734 Million cell updates/sec

1 GPETLCGAELVDALQFVCGD.....SCDLRRLEMYCAPLKPAKSA 70 US-10-066-009A-1 Title: Perfect score: Sequence:

Gapop 10.0 , Gapext 0.5 BLOSUM62 Scoring table:

1049977 Total number of hits satisfying chosen parameters: 1049977 segs, 258955339 residues Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		Y P (
Result No.	Score	Query	Query Match Length DB	DB	ΙD	Description	
-	385	100.0	70	6	US-09-848-664-29	Sequence 29,	Appl
0	385	100.0	70	o	US-09-848-664-30	30	Appl
ო	385	100.0	70	6	US-09-903-327A-8	ώ	Appli
4	385	100.0	70	10	US-09-858-935B-3	m m	Appl
Ŋ	385	100.0	70	12	US-10-444-649-1	Sequence 1,	Appl
9	385	100.0	. 70	12	US-10-444-701-1	Sequence 1,	App1
7	385	100.0	70	13	US-10-028-410-1	Sequence 1,	App1;
60	385	100.0	70	13	US-10-066-009A-1	Seguence 1,	Appl
σ	385	100.0	70	14	US-10-136-639-1	Segmence 1,	Appl
10	385	100.0	70	14	US-10-136-841-7	Sequence 7,	App1
11	385	100.0	70	14	US-10-444-326-1	Sequence 1,	Appl
12	385	100.0	70	15	US-10-272-531A-7	Sequence 7,	App1
13	385	100.0	70	15	US-10-272-483A-7	Sequence 7,	Appli
14	385	100.0	70	16	US-10-444-262-1	Sequence 1,	Apply
15	385	100.0	105	Ø	US-09-852-261-10	Semience 10.	

US-09-848-664-30 ; Sequence 30, Application US/09848664

Sequence 3, Appli	'n	ο,	ω	~	a)	•••	٠.	3	Φ	4	Seguence 41, Appl	•	\ddot{a}		Ä	9	ď	•	H	4	0)	٠.	138,	Н	e 138	133	?	ď	ω̈
14 US-10-238-114-3	9 US-09-852-261-2	US-10-179-0	4 U	US-09-919-497-	4 US-10-136-	4 US-10-2	4 US-10-207-655	US-09-921-398-	4 US-10-280-826-	-60-SD	4 US-10-280-826-4	5 US-10-443-4	US-09-903-327A-1	4 US-10-241-59	US-09-852-261-	US-09-852-261	4 US-10-323-046-	4 US-10-161-088-	US-09-852-2	US-09-852-2	4 US-10-339	3 US-10-	US-09-205-	us-	0 US-09-963-693-13	96-60-SD 0	3 US-10-066-009A~	4 US-10-136-	4 US-10-136-84
105	110	118	137	153	153	153	153	155	155	191	191	195	510	953	105	111	91	133	105	111	68	26	46	46	46	46	67	67	67.
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385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	382	382	378	365	341	341	317	300	223.5	223.5	223.5	223.5	223	223	223
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	6 8	40	41	42	43	44	45

ALIGNMENTS

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Sequence 29, Application US/09848664

Retent No. US20020146414A1

GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Controlled Release of No. US20020146414A1-Heparin Binding Growtl)
TITLE OF INVENTION: Factors from Heparin Containing Matrices
FILE REPERBNCE: BTH 108
CURRENT APPLICATION NUMBER: US/09/848,664
CURRENT APPLICATION NUMBER: US/09/848,664
FRIOR APPLICATION NUMBER: 09/298,084
FRIOR FILING DATE: 1999-04-22
NUMBER OF SEQ ID NOS: 31
SOFTWARE: Patentin Ver. 2.1
SSOFTWARE: Patentin Ver. 2.1
SSOFTWARE: Patentin Ver. 2.1
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CORGANISM: Homo sapiens
US-09-848-664-29
US-09-848-664-29
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                           Sequence 3, Application US/09858935B

Sequence 3, Application US/09858935B

Publication No. US2030069177A1

GENERAL INFORMATION:

APPLICANT: Dubaguie, Yves

APPLICANT: Lowman, Henry B:

TILE OF INVENTION: METHOD FOR TREATING CARTILAGE DISORDERS

FILE REFERENCE: P194R1

CURRENT APPLICATION NUMBER: US/09/858,995B

CURRENT FILING DATE: 2002-07-02

PRIOR FILING DATE: 2000-11-15

PRIOR FILING DATE: 2000-11-15

PRIOR FILING DATE: 2000-05-16

NUMBER: OF SEQ ID NOS: 153
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Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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CONTROLL APPLICATION US/1044649

PUBLICATION NO. US20040033951A1

GENERAL INFORMATION

GENERAL INFORMATION

TILLE OF INVENTION: PROTEIN VARIANTS

FILE REPERSENCE: P1712R1

CURRENT APPLICATION NUMBER: US/10/444,649

CURRENT FILING DATE: 2003-05-22

PRIOR FILING DATE: 2003-01-28

PRIOR FILING DATE: 2000-11-28

PRIOR FILING DATE: 2000-11-28

PRIOR FILING DATE: 2000-05

NUMBER OF FILING DATE: 2000-01-05

NUMBER OF SEQ ID NOS: 6

SENGIFICATION NUMBER: US/09/477,923

NUMBER OF SEQ ID NOS: 6

LENGIFI: 70
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CRGANISM: Homo sapiens
US-10-444-649-1
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US-10-444-701-1
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                           GENERAL INFORMATION:
APPLICANT: Sakiyama-Elbert, Shelly E.
APPLICANT: Sakiyama-Elbert, Shelly E.
APPLICANT: Hubbland: Controlled Release of No. US20020146414A1-Heparin Binding Growth TITLE OF INVENTION: Controlled Release of No. US20020146414A1-Heparin Binding Growth TITLE OF INVENTION: Factors from Heparin Containing Matrices
TITLE OF INVENTION: Pactors from Heparin Containing Matrices
CURRENT APPLICATION NUMBER: US/09/848,664
CURRENT FILING DATE: 2001-05-03
PRIOR PAPLICATION NUMBER: 09/298,084
PRIOR PILING DATE: 1999-04-22
NUMBER OF SEQ ID NOS: 31
SOFTWARE: ParentIn Ver. 2.1
SEQ ID NO 30
LENGTH: 70
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NAME/KEY: PEPTIDE
LOCATION: (0)...(0)
...(0)...(0)
...(0)...(0)
...(THEN INFORMATION: Human Insulin-like Growth Factor 1 sequence
...OTHER INFORMATION: (IGF-1, mature peptide)
US-09-903-327A-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 385; DB 9; Length 70; 100.0%; Pred. No. 2.9e-40; ative 0; Mismatches 0; Indels
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100.0%; Score 385; DB 9; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.
Matches 70; Conservative
Patent No. US20020146414A1
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; ORGANISM: Homo sapiens
US-09-848-664-30
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ORGANISM: Human
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US-09-903-327A-8
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Gaps

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Sequence 1, Application US/10136639
Publication No. US20030072761A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Lebewitz, Jonathan
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETING PROTEINS ACROSS THE BLOOM
TITLE OF INVENTION: BARRIER
TITLE OF INVENTION: BARRIER: US/10/136,639
CURRENT APPLICATION NUMBER: US 60/329,650
FRIOR FILING DATE: 2001-10-16
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin version 3.0
SEQ ID NO 1
LENGTH: 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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; Publication No. US20030082176A1
; GENERAL INFORMATION:
APPLICANT: LEBOWItz, Jonathan
; APPLICANT: Beverley, Stephen
; ITLE OF INVENTION: SUBCELLULAR TARGETING OF THERAPEUTIC PROTEINS
; FILE REPERRENCE: SYM-007
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 385; DB 13; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels C
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Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
APPLICANT: Vajdos, Pelix
TITLE OF INVENTION: CRYSTALLIZATION OF IGF-1
FILE REFERENCE: P1869R1
CURRENT APPLICATION NUMBER: US/10/066,009A
CURENT FILING DATE: 2002-06-24
PRIOR PELING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
SPIOR FILING DATE: 2001-03-09
SEQ ID NO.
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ORGANISM: Homo sapiens
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CRGANISM: Homo sapiens
US-10-136-639-1
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les 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REPERBNCE: P1712R1-1
CURRENT APPLICATION NUMBER: US/10/2024
CURRENT FILING DATE: 2001-12-19
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 1
SEQ ID NO: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                      APPLICANT: LOWMEN, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFRENCES: P1712R1
CURRENT APPLICATION NUMBER: US/09/424,701
CURRENT FILING DATE: 2003-05-22
PRIOR APPLICATION NUMBER: US/09/712,866
PRIOR FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: US/09/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NOS: 6
SEQ ID NOS: 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/10028410; Publication No. US20020160955A1; GENERAL INFORMATION:
       Sequence 1, Application US/10444701
Publication No. US20040033952A1
GENERAL INFORMATION:
APPLICANT: Dubaquie, Yves
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ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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Best Local Similarity
Matches 70; Conserv
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Sequence 7, Application US/10272483A

Publication No. US20040006608A1

GENERAL INFORMATION:
APPLICANT: LEBOWICz, Jonathan H
APPLICANT: LEBOWICz, Jonathan H
APPLICANT: BEVERIEY, Stephen
TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
FILE REFERENCE: SYM-007CP
CURRENT FILING DATE: 2002-10-16
PRIOR APPLICATION NUMBER: US 60/287,531
PRIOR PELING DATE: 2001-04-30
PRIOR PILING DATE: 2002-04-30
PRIOR PLING DATE: 2002-06-05
PRIOR PELING DATE: 2002-06-05
PRIOR FILING DATE: 2002-06-05
PRIOR FILING DATE: 2002-06-05
PRIOR FILING DATE: 2002-06-05
PRIOR FILING DATE: 2002-06-06
PRIOR FILING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR RELING DATE: 2001-07-10
PRIOR RELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR PELING DATE: 2001-07-10
PRIOR FILING DATE: 2001-07-10
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100.0%; Score 385; DB 15;
Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0;
    TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
                                   FILE REFERENCE: SYM-009
CURRENT APPLICATION NUMBER: US/10/272,531A
CURRENT FILING DATE: 2002-10-16
PRIOR PILING DATE: 2002-05-29
PRIOR PILING DATE: 2002-05-29
PRIOR PILING DATE: 2002-05-05
PRIOR PILING DATE: 2002-05-05
PRIOR PILING DATE: 2002-05-05
PRIOR FILING DATE: 2002-05-05
NUMBER OF SEQ ID NOS: 22
SEQ ID NO 7
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US-10-272-531A-7
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100.0%; Score 385; DB 14; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 2.9e-40;
Matches 70; Conservative 0; Mismatches 0;
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Sequence 1, Application US/10444326
Publication No. US20030191065A1
Sequence 1, Language 1, Languag
CURRENT FILING DATE: 2002-08-22
PRIOR APPLICATION NUMBER: US 60/287,531
PRIOR FILING DATE: 2001-04-30
PRIOR PLILING DATE: 2001-07-10
PRIOR PLILING DATE: 2001-07-10
PRIOR PLILING DATE: 2001-07-10
PRIOR FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: US 60/329,461
PRIOR PLILING DATE: 2001-10-15
PRIOR PLILING DATE: 2001-10-15
PRIOR PLILING DATE: 2002-01-23
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PATCHIN VERSION 3.0
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APPLICANT: Beverley, Stephen
APPLICANT: Sly, William S.
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; ORGANISM: Homo sapiens
US-10-136-841-7
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; ORGANISM: Homo sapiens
US-10-444-326-1
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61 CAPLKPAKSA 70
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US-09-852-261-2
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100.0%; Score 385; DB 9; Length 105;
Best Local Similarity 100.0%; Pred. No. 4.6e-40;
Matches 70; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 70;
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2.9e-40;
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; Sequence 10, US20020083477A1
; GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: GLOBSINK, GEOFFREY
TILE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
; CURRENT PELLOCATION NUMBER: US/09/852,261
; CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR APPLICATION NUMBER: GB 0011278.9
; PRIOR PELLING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 14
; SQ ID NO 10
; LENGTH: 105
; TYPE: PRT
; ORGANISM: Homo sapiens
                                                                                                                  Sequence 1, Application US/10444262

Sequence 1, Application US/10444262

Publication No. US2004002383A1

GENERAL INFORMATION:
APPLICANT: Dubaquie, Yves
APPLICANT: Lowann, Henry
TILE OF INVENTION: PROTEIN VARIANTS
TILE REFERENCE: P1712R1

CURRENT APPLICATION NUMBER: US/10/444,262

CURRENT FILING DATE: 2003-05-22

PRIOR APPLICATION NUMBER: US/09/477,923

PRIOR FILING DATE: 2000-11-28

PRIOR FILING DATE: 2000-11-05

NUMBER OF SEQ ID NOS: 6

SEQ ID NO 1

LENGTH: 70
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100.0%; Pred. No. 2.9
:ive 0; Mismatches
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Matches 70; Conservative
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                             61 CAPLKPAKSA 70
61 CAPLKPAKSA 70
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CRGANISM: Homo sapiens
US-10-444-262-1
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Sequence 3, Application US/10238114
Sequence 3, Application US/10238114
Publication No. US20030100073A1
GENERAL INFORMATION:
APPLICANT: Marial
APPLICANT: Marial
APPLICANT: ANDREONI , Christine Michele
TITLE OF INVENTION: 109-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE F
TILE REFERENCE: 454313-3165.1
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT FILING DATE: 2002-09-10
PRIOR APPLICATION NUMBER: PR 01 11736
PRIOR PLIING DATE: 2001-09-11
PRIOR PLIING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 20
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin version 3.1
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Best Local Similarity 100.0%; Score 385; DB 14; Length 105;
Best Local Similarity 100.0%; Pred. No. 4.6e-40;
Matches 70; Conservative 0; Mismatches 0; Indels 0
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Best Local Similarity 100.0%; Pred. No. 4.8e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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Fatent No. US20020083477A1
GENERAL INFORMATION:
APPLICANT: GCLIDSPLINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVATION: REPAIR OF NEWE DAWGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
FRIOR FILING DATE: 2001-05-10
NUMBER: OF SEQ ID NOS: 14
SOFUTANE: Patentin Ver: 2.1
SEQ ID NO.2
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109 CAPLKPAKSA 118
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                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
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US-09-919-497-74
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                                                       APPLICANT: AVACORD, Kenneth
Zaror, Isabel
Innis, Michael
ITILE OF INVENTION: Pichia Secretory Leader for Protein
Expression
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
CORRESPONDENCE Chiron Corporation
STREET: 4560 Horton Street
CITY: Emeryville
STATE: California
COUNTRY: United States
ZIP: 94608
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US-10-251-661-8
US-10-251-661-8
Sequence 8, Application US/10251661
Selection No. US20030166555A1
GENERAL INFORMATION:
APPLICANT: Alberini, Cristina M.
APPLICANT: Bear, Mark F.
TITLE OF INVENTION: Methods and Compositions for Regulating
TITLE OF INVENTION: Memory Consolidation
FILE REFERENCE: 3499.1001-003
CURRENT APPLICATION NUMBER: US/10/251,661
CURRENT FILING DATE: 2002-09-20
PRIOR FILING DATE: 2000-03-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 118;
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COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/10/179,046
FILING DATE: 25-Jun-2002
CLASSIFICATION NUMBER: US/09/029,267
FILING DATE: 40hknown>
PRIOR APPLICATION DATE: 40hknown>
PRIOR APPLICATION NUMBER: US/09/029,267
FILING DATE: 40hknown>
ATTORNEY/AGENT INFORMATION:
NAME: CLUNG, Ling-Fong
REGISTRATION NUMBER: 36,482
REGISTRATION NUMBER: 36,482
REFERENCE/DOCKET NUMBER: 1165.100
TELERHONE: (510) 601-2704
TELERHONE: (510) 655-3542
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
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100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 5.2e-40;
Matches 70; Conservative 0; Mismatches 0;
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**MOLECULE TYPE: protein
;
**SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-179-046-14
Sequence 14, Application US/10179046
Publication No. US20030013154A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 118 amino acids TYPE: amino acid
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86 GPETLCGAELVDALQEVCGDRGFYENKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
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                                                                                                          49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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                                                                1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRLEMY
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Sequence 39, Application US/09921398
Sequence 39, Application US/09921398
Sequence 39, Application:
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
APPLICANT: Tekamp-Olson, Patricia
APPLICANT: Tekamp-Olson, Patricia
APPLICANT: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
CORRESPONDENCE: ADDRESSE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
CITT: Raigh
STREET: NC.
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; Sequence 39, Application US/10280826
; Publication No. US20030077831A1
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 155;
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Pred. No. 7e-40;
; Mismatches 0; Indels
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COMPUTER: IBM PC compatible
COMPATER: DEM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 385; DB 9;
Best Local Similarity 100.0%; Pred. No. 7.1e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/921,398
FILING DATE: 02-Aug-2001
CLASSIFICATION: <UNKNOWD>
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REGIGTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear

NOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 39:
US-09-921-398-39
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  Best Local Similarity 100.0%; P
Matches 70; Conservative 0;
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INFORMATION FOR SEQ ID NO: 39:
SEQUENCE CHARACTERISTICS:
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COMPUTER READABLE FORM:
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APPLICANT: MANREONI, Christine Michele
APPLICANT: MANREONI, Christine Michele
TITLE OF INVENTION: IGF1.
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT FILING DATE: 2002-09-10
PRIOR FILING DATE: 2001-09-11
PRIOR FILING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin version 3.1
SEQ ID NOS: 20
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                                                                                                                                                                                                                                    49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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                                                                                                                                                    Gaps
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APPLICANT: Ladbetter, Jeffrey A.; APPLICANT: Hadden-Ledbetter, Martha S.; FILE DF INVENTION: BINDING DOWAIN-IMMUNOGLOBULIN FUSION PROTEINS; FILE REFERENCE: 390069.401c1; CURRENT APPLICATION NUMBER: US/10/207,655; CURRENT FILING DATE: 2002-07-25; NUMBER OF SEQ ID NOS: 426; SOFTWARE: Patentin version 3.0; SEQ ID NO 55
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                                                                                                        DB 14; Length 153;
                                                                                                        Query Match 100.0%; Score 385; DB 14; Length Best Local Similarity 100.0%; Pred. No. 7e-40; Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 385; DB 14; Length
11arity 100.0%; Pred. No. 7e-40;
Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/10238114 Publication No. US20030100073A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 CAPLKPAKSA 118
                                                                                                                                                                                                                                                                                                                                          CAPLKPAKSA 118
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                                                                                                                                                                                                                                                                                             61 CAPLKPAKSA 70
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CRGANISM: Homo sapiens
US-10-207-655-55
                 ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-136-639-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 70; Conserv
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US-10-207-655-55
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TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 41:
               CLASSIFICATION: «UTKNOWN:
ATTONEY AGENT INFORMATION:
NAME: SPULIL, W. MULTAY
REGISTRATION NUMBER: 32,943
REPRENCE/DOCKET WINBER: 5784-
TELECOMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPHONE: 919 420 2202
TELEPHONE: 919 420 41:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TELEPHONE: 919 420 2202
TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO: 41:
                                                                                                                                                                                                                                                        LENGTH: 191 amino acids
TYPE: amino acid
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Best Local Similarity 100.0%;
Matches 70; Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                    NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
STATE: NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSE: Bell Seltzer IP Group of Alston & Bird, LLP
'STREET: 3656 Glenwood Ave. Suite 310
CITY: Raleigh
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Patent No. US20020055169A1
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 155;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 7.1e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/280,826
FILING DATE: 25-0ct-2002
CLASSIFTCATION: cUnknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/989,251
FILING DATE: chrknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/921,396
PROTEINS IN YEAST
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH-ISS amino acids
TYPE: amino acids
TYPE: amino acid
TYPE: TYPE: protein
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 39:
US-10-280-826-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 57
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                  ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO: 39:
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86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/280,826
FILING DATE: 25-OCC-2002
CLASSIFICATION NUMBER: US/08/989,251
FILING DATE: AUTHORNA
APPLICATION NUMBER: US/08/989,251
FILING DATE: AUTHORNA
APPLICATION NUMBER: 32,943
RESISTRATION NUMBER: 32,943
RESISTRATION NUMBER: 5784-4
                                                                                                                                                                                               Indels
                                                                                                                                            , Score 385; DB 9;
; Pred. No. 9e-40;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6,
US-10-280-826-41
i Sequence 41, Application US/10280826
i Publication No. US20030077831A1
i GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRES!
TOPOLOGY: linear;

MOLECULE TYPE: protein;

SEQUENCE DESCRIPTION: SEQ ID NO: 41:
US-09-921-398-41
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OGGANISM: Artificial Sequence
FEATURE: OTHER INFORMATION: Fusion protein with N-terminal portion of DAV-1 heavy chain
OTHER INFORMATION: and IGF-1 mature peptide
US-09-033-327A-12
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Best Local Similarity 100.0%; Pred. No. 5.4e-39;
Matches 70; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                              Length 510;
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APPLICANT: Microbiological Research Authority
APPLICANT: The Speywood Laboratory Limited
TITLE OF INVENTION Recombinant Toxin Fragments
TITLE OF INVENTION Recombinant Toxin Fragments
CURRENT APPLICATION NUMBER: US/10/241,596
CURRENT FILING DATE: 2002-09-12.
PRIOR PELICATION NUMBER: US 09/255,829
PRIOR PELICATION NUMBER: US 09/242,689
PRIOR APPLICATION NUMBER: PCT/GB97/02273
PRIOR APPLICATION NUMBER: US 09/242,689
PRIOR PILING DATE: 1997-08-22
PRIOR PILING DATE: 1996-02-23
PRIOR FILING DATE: 1996-12-27
PRIOR FILING DATE: 1996-12-17
PRIOR PLILING DATE: 1996-12-13
PRIOR PLILING DATE: 1996-10-13
                                                                                                                                                                                                                                                                                                                                              Query Match
100.0%; Score 385; DB 9;
Best Local Similarity 100.0%; Pred. No. 2.7e-39;
Matches 70; Conservative 0; Mismatches 0;
PRIOR APPLICATION NUMBER: 09/613,017
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PastSEQ for Windows Version 4.0
ERGID NO 12
LENGTH: 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 14, Application US/10241596
Publication No. US20030166238A1
GENERAL INFORMATION:
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US-09-852-261-14
; Sequence 14, Application US/09852261
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US-10-241-596-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501 CAPLKPAKSA 510
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Patent No. US20020164333A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREMITH FOR TARGET
TITLE OF INVENTION: DELIVERY
FILE REPRENEUR: 2010 NOW-BER: US/09/903,327A
CURRENT APPLICATION NOW-BER: US/09/903,327A
                                                                                                                                                                                                              86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYCSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
                                                                                                                                                                    1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                     DB 14; Length 191;
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TITLE OF INVENTION: NEUTRALIZING HUMAN ANTI-IGFR ANTIBODY
FILE REFRENCE: OCO1533-K-US
CURRENT APPLICATION NUMBER: US/10/443,466A
CURRENT APPLICATION NUMBER: G0/383,459
PRIOR APPLICATION NUMBER: 60/383,459
PRIOR FILING DATE: 2002-05-24
PRIOR FILING DATE: 2002-07-02
PRIOR FILING DATE: 2002-07-02
PRIOR PILING DATE: 2002-07-02
PRIOR PLING DATE: 2002-12-23
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 2 0
                                                                  Query Match 100.0%; Score 385; DB 14; Length Best Local Similarity 100.0%; Pred. No. 9e-40; Matches 70; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.0%; Pred. No. 9
Matches 70; Conservative 0; Mismatches
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APPLICATION NUMBER: US/09/903,327A
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20, Application US/10443466A Publication No. US20040018191A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wang, Yan
APPLICANT: Pachter, Jonathan A
APPLICANT: Halley, Judith
APPLICANT: Greenberg, Robert
APPLICANT: Leonard, Presta
APPLICANT: Brans, Peter
APPLICANT: Feingersh, Diane
APPLICANT: Feingersh, Diane
APPLICANT: Williams, Denise
                                                                                                                                                                                                                                                                                                                              146 CAPLKPAKSA 155
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ORGANISM: Homo sapiens
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                   US-10-280-826-41
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22 GPEYLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 81
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TITLE OF INVENTION: Growth Factor Modified Protein Matrices for Tissue TITLE OF INVENTION: Engineering FILE REFERENCE: ETH 107 CIP (2) CURRENT APPLICATION NUMBER: US/10/323,046 CURRENT FILING DATE: 2002-12-17 PRIOR PRILING DATE: 1998-08-27 NUMBER OF SEQ ID NOS: 43 SOFTWARE: Patentin Ver. 3.1 SEQ ID NO 42 LENGTH: 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Modified IGF 1 from Homo sapiens US-10-323-046-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94.8%; Score 365; DB 14; 94.3%; Pred. No. 1.8e-37; tive 1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/10161088
Publication No. US20030077761A1
GENERAL INFORMATION:
APPLICANT: Parrow, Vendela
TITLE OF INVENTION: NEW METHODS
FILE REFERENCE: 13425-111001
CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT FILE OF INVENTION NUMBER: SE 0101934-8
PRIOR PELLING DATE: 2001-06-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 12, Application US/0985261
PARENT NO. US20020034377A1
GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERREMET, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 3
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID LENGTH: 133
                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 94.3
Matches 66; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
US-10-161-088-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 35
US-09-852-261-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                      99.2%; Score 382; DB 9; Length 105; 98.6%; Pred. No. 1.1e-39; 1ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
SOFTWARE: 105
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US-10-323-046-42
US-10-323-046-42
Sequence 42, Application US/10323046
Publication No. US20030187232A1
GENERAL INFORMATION:
APPLICANT: Hubbell, Jafffrey A
APPLICANT: Schense, Jason C
APPLICANT: Schense, Jason C
APPLICANT: Sakiyama-Elbert, Shelly E
                                                                                                                                                                                                                                                                                                                  TYPE: PRT;
; ORGANISM: Oryctolagus cuniculus
US-09-852-261-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Oryctolagus cuniculus
US-09-852-261-6
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 98.69
Matches 69; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                         Query Match 82.3%; Score 317; DB 14; Length 68; Best Local Similarity 85.7%; Pred. No. 8.1e-32; Matches 60; Conservative 0; Mismatches 8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 77.9%; Score 300; DB 13; Length 56; Best Local Similarity 90.3%; Pred. No. 8.5e-30; Matches 56; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; CTHER INFORMATION: Residues observed in IGF-1 structure US-10-066-009A-5
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APPLICANT: Ogg, Scott
TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5, Application US/10066009A; Sequence 5, Application US/10066009A; Publication No. US20020165155A1
GENERAL INFORMATION:
APPLICANT: Schaffer, Michelle
APPLICANT: Ultsch, Mark
APPLICANT: Vajdos, Felix
TITLE OF INVENTION: CRYSTALLIZATION OF IGF-1
FILE REPERENCE: P1869A1
CURRENT APPLICATION NUMBER: US/10/066,009A
CURRENT FILING DATE: 2002-06-24
PRIOR APPLICATION NUMBER: US 60/287,072
PRIOR FILING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
NUMBER OF SEQ ID NOS: 5
SEQ ID NOS: 5
PRIOR APPLICATION NUMBER: US/09/084,303A
PRIOR FILING DATE: 1998-05-26
NUMBER OF SEQ ID NOS: 298
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 218
LENGTH: 68
                                                                                                                                                                                                                          NAME/KEY: misc_feature

) LOCATION: (30)...(37)

) OTHER INFORMATION: Xaa = Any amino Acid

US-10-339-740-218
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; Patent No. US20010029617A1
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                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
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US-09-205-658-138
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Publication No. US20030187246A1

GENERAL INFORMATION:
APPLICANT: Boderstein, Stephen
APPLICANT: Reddy, Bindu
APPLICANT: Platt, Darren
APPLICANT: Platt, Darren
APPLICANT: Platt, Darren
APPLICANT: Pregueson, Kimberly
TITLE OF INVENTION: THEREOF
FILE REPREMER: 7326-069-995
CURRENT APPLICANT: WIGHER: US/10/339,740

CURRENT APPLICANTION NUMBER: US/10/339,740
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Pred. No. 1.4e-34;
0; Mismatches 7; Indels
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Pred. No. 1.4e-34;
0; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4. Application US/09852261
Patent No. US20020083477A1
GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERREGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REPERBRENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
     CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver: 2.1
SEQ ID NO 12
LENGTH: 105
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Best Local Similarity 90.0%;
Matches 63; Conservative
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Best Local Similarity 90.0
Matches 63; Conservative
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CORGANISM: Rattus sp.
US-09-852-261-4
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US-10-339-740-218
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 75.4%; Pred. No. 2.2e-20;
Matches 43; Conservative 0; Mismatches 3; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 139, Application US/09205658

Sequence 139, Application US/09205658

GENERAL INFORMATION:
APPLICANT: Ruckun, Gary
APPLICANT: OGG Scott
TITLE OF INVENTION: IMPAIRED GLUCOSE TOLERANCE CONDITIONS
FILE REFERENCE: 00786/351004
CURRENT APPLICATION UNMERR: US/09/205,658
CURRENT PILING DATE: 1998-12-03
EARLIER PILING DATE: 1997-05-15
EARLIER PILING DATE: 1997-06-15
EARLIER PILING DATE: 1997-07-07
EARLIER PILING DATE: 1998-05-15
EARLIER PILING DATE: 1998-05-15
EARLIER PILING DATE: 1998-05-15
SACHER PILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
SOCTWARE: FRESEQ for Windows Version 4.0
TITLE OF INVENTION: IMPAIRED GLUCOSE TOLERANCE CONDITIONS FILE REFERENCE: 00786/351004
                                               CURRENT APPLICATION NUMBER: US/09/205,658
CURRENT FILING DATE: 1998-12-03
EARLIER APPLICATION NUMBER: 08/857,076
EARLIER FILING DATE: 1997-05-15
EARLIER FILING DATE: 1997-06-15
EARLIER FILING DATE: 1997-07-07
EARLIER APPLICATION NUMBER: 08/888,534
EARLIER PILING DATE: 1997-07-07
EARLIER APPLICATION NUMBER: US98/10080
EARLIER PILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
SOOTHARE: FESTERE (FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
SOOTHARE: FESTERE (FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
SOOTHARE: FESTERE (FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
ELENGTH: 46
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NAME/RED:

LOCATION: (1)...(46)

OTHER INFORMATION: Xaa = Any Amino Acid
US-09-205-658-139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: VARIANT
COCATION: (1)...(46)
COTHER INFORMATION: Xaa = Any Amino Acid
US-09-205-659-138
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Best Local Similarity 75.4
Matches 43; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Canis
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091161 oncorhynchu
091476 salmo salar
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091231 oncorhynchu
091821 oncorhynchu
091826 oncorhynchu
09186 oncorhynchu
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228236 cervus elap

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REQUENCE FROM N.A.

REDLINE-88065102; PubMed=3683205;

REDLINE-88065102; PubMed=3683205;

REDLINE-88065102; PubMed=3683205;

RAIL L.B., Scott J., Bell G.I.;

RTHUMEN insulin-like growth factor I and II messenger RNA: isolation of complementary DNA and analysis of expression.";

RECOMPLEMENTATIOL. 146:1239-248[1987].

RECOMPLEMENTATION. SECRETED (BY SIMILARITY).

- I-SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

RESP: PO1343; 20F1.

GO: GO:0005576; C:extracellular; IEA.

GO: GO:0007582; P:physiological processes; IEA.

INEXPO: PRO0277; INSULINE.

BRINTS; PRO0277; INSULINE.

REAM: PRO0078; INSULIN: 1.

REAM: ROOO099; INSULIN: 1.

REAM: ROOO099; INSULIN: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IGF1.
Homo sapiens (Human).
Bukaryota, Merazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Primates, Catarrhini; Hominidae, Homo.
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POTENTIAL.
970FBAAECFA0352D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
Last sequence update)
Last annotation update)
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95 PC
14406 MW;
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   PRELIMINARY;
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130 AA;
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Best Local Similarity
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Q9NP10
   DTTO
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Q14620 homo sapien
Q14620 homo sapien
Q13429 homo sapien
P79167 equus cabal
P97899 rattus sp.
Q8c4u6 mus musculu
Q8car0 mus musculu
Q8car0 mus musculu
Q90870 bubalus bub
Q29wk2 carassius a
Q9his capreolus c
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                                                                                                                           February 25, 2004, 06:19:08 ; Search time 37.8102 Seconds (without alignments) 584.135 Million cell updates/sec
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                                                                                                                                                                                                                         385
1 GPETLCGAELVDALQFVCGD......SCDLRRLEMYCAPLKPAKSA 70
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                   GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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sp_virus:*
sp_vvrebrate:*
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Gapop 10.0 , Gapext 0.5
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sp_invertebrate:*

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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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                           NCBI_TaxID=9606;
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                                                                    GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                       26 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lien S., Karlsen A., Klemetsdal G., Vage D.I., Olsaker I.,
Lien S., Karlsen A., Klemetsdal G., Vage D.I., Olsaker I.,
Liugland H., Asaland M., Heringstad B., Ruane J., Gomez-Raya L.;
"A primary screen of the bovine genome for quantitative trait loci
affecting twinning rate.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; AF210387; AAF72409.1;
"HSSP; PO1343; 2GF1.
HSSP; PO1343; 2GF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos. MCBI_TaxID=9913;
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Q14620;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
10-JUN-2003 (TrEMBLrel. 24, Last annotation update)
11sulin-like growth factor I precursor.
1GF1.
HOMO sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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100.0%; Pred. No. 1.2e-42;
live 0; Mismatches 0; Indels
      0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
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01-OCT-2000 (TrEMBLrel. 15, Last sequen
01.-UIN-2003 (TrEMBLrel. 24, Last annota
Insulin-like growth factor I (Fragment)
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Best Local Similarity 100.
Matches 70; Conservative
      70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                             61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                       CAPLKPAKSA 95
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Q9N1C1;
      Matches
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Q14620
ID Q1463
DT Q1-M
DT 01-M
DT 01-J
DB IDSU
GN IGF1
OS HOMO
OC EUKR.
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Q9N1C1
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WEDLINE=95237119; PubMed=7720641;

WEDLINE=95237119; PubMed=7720641;

Chew S.L., Lavender P., Clark A.J.,

Chew S.L., Lavender P., Clark A.J.,

Chew S.L., Lavender P., Clark A.J.,

Tan alternatively spliced human insulin-like growth factor-I

transcript with hepatic tissue expression that diverts away from the

ry mitogenic IBEL peptide.";

Endocrinology 136:1239-1344 (1995).

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

RSP; PO1343; 2GF1.

RSP; PO1343; 2GF1.

RSP; PO1343; 2GF1.

RSP; PO1343; 2GF1.

RO; GO:0005576; C:extracellular; IEA.

RO; GO:0005782; P:physiological processes; IEA.

RO; GO:0005782; INS/IGF/relax.

REMN: PRO0492; INS/ILINB.

RRINTS; PRO04277; INS/ILINB.
33 GPETLCGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GPETLOGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 137; Score 385; DB 4; Length 137; Local Similarity 100.0%; Pred. No. 1.3e-42; es 70; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INSULIN-LIKE GROWTH FACTOR I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 32 POTENTIAL.
33 137 INSULIN-LIKE GROWTH FACTOI
137 AA; 15177 MW; BFCCOD11E32AB75D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-UUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor-I (Fragment).
                                                                                                                                                                                                                                                                             HSSP, P01343; ZGF1.

GO; GO: 0005576; C: extracellular; IEA.
GO; GO: 0005179; F: hormone activity; IEA.
GO; GO: 0005179; F: hormone activity; IEA.
GO; GO: 00007882; P: physiological processes; IEA.
InterPro; IPR004825; Ins/IGF/relax.
PFRMYS; PR00277; INSULIN; 1.
SMART; SM00078; IIGF; 1.
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SEQUENCE
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                                                                                          GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                         30 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 89
                                                                                                                                                                                                                                                                                                                                                                                             MEDILINE=97013467; PubMed=8860303;
Otte K., Rozell B., Gesbo A., Engstrom W.;
"Cloning and sequencing of an equine insulin-like growth factor I cDNA
and its expression in fetal and adult tissues.";
Gen. Comp. Endocrinol. 102:11-15(1996).
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 123-139 FROM N.A.

Nixon A.J., Toland B.D., Sandell L.J.;

Submitted (JAN-1997) to the BMBL/GenBank/DDBJ databases.

-1- FUNCTION: THE INSULIN-LIKE GROWTH PACTORS, ISOLATED FROM PLASMA,

ARE STRUCTURALLY AND FUNCTIONALLY RELATED TO INSULIN BUT HAVE A

MUCH HIGHER GROWTH-PROMOTING ACTIVITY.

-1- SUBCELLULAR LOCATION: SECRETED.

-1- ALTERNATIVE PRODUCTS:

Event-Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                   Equus caballus (Horse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
NCBI_TaxID=9796;
                                                                                                                                                                                                                                    P79167;
01-MAY-1197 (TrEMBirel. 03, Created)
01-OCT-2000 (TrEMBirel. 15, Last sequence update)
01-OCT-2003 (TrEMBirel. 24, Last annotation update)
11-UIN-2003 (TrEMBirel. 24, Last annotation update)
Insulin-like growth factor IB precursor (IGF-IB) (Somatomedin C)
(Fragments).
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INSULIN-LIKE GROWTH FACTOR IB.
B.
C.
A.
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GO: GO:0005576; C:extracellular; IEA.

GO: GO:000576; F:growth factor activity; IEA.

GO: GO:0005179; F:prownen activity; IEA.

GO: GO:000582; P:physiological processes; IEA.

INTERPROY PRO0277; INSULINB.

PRINTS; PR00277; INSULINB.

PRART; SW00078; INSULINS.

PROSITE; PS000262; INSULINS.

INSULIN; Growth factor; Signal; Alternative splicing.
                                               Length 139;
                                            100.0%; Score 385; DB 4; Length 13 100.0%; Pred. No. 1.3e-42; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ISOId=P51458-1; Sequence=External; SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY
                       139 AA; 15611 MW; A62271872CA29DE4 CRC64;
                                                                                                                                                                                                                          139 AA.
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IsoId=P79167-1; Sequence=Displayed;
                                                                                                                                                                                                                          PRT;
   PROSITE; PS00262; INSULIN; 1.
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U85271; AAB47484.1; -.
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 1-122 FROM N.A.
                                    Query Match
Best Local Similarity 10v...
Best Act 70; Conservative
                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                           61 CAPLKPAKSA 70
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SEQUENCE
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P79167
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A MEDINE-91103966; PubMed=1368571;

A MATCH, Okoshi A., Miura Y., Noguchi T.;

A MATCH, Okoshi A., Miura Y., Noguchi T.;

A MATCH A., Okoshi A., Miura Y., Noguchi T.;

A Tan ew CDNA clone relating to larger molecular species of rat insulinate of the growth factor-I mRNA.";

A MATCH SIOL Chem. 54:1599-1601(1990).

C I SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

C GO: GO: 0005576; C: extracellular; IEA.

C GO: GO: 0005579; C: extracellular; IEA.

C GO: GO: 0005579; PibMasiological processes; IEA.

INTERPRO; IPRO0492; Insulini.

PRAMI; SMO0794; IIGF; I.

PRAMIS: MINTS; PRO0252; INSULINE.

PRAMIS: MINTS; PRO0252; INSULINE.

PRAMIS: MINTS; PRO0252; INSULINE.

PRAMIS: MINTS; PRO0252; INSULINE.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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MEDLINE=87222423; PubMed=3034909;
Shimmatsu A., Rotwein P.;
Mosaic evolution of the insulin-like growth factors.";
J. Biol. Chem. 262:7894-7900(1987).
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1-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-UNA-1903 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I.
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123
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122 1
54 1
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139 AA;
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SEQUENCE FROW N.A.

MEDLINE=22354683; PubMed=12466851;

A The FANTOM Consortium,

The FANTOM Consortium,

The RIKEN Genome Exploration Research Group Phase I & II Team;

A the RIKEN Genome Exploration Research Group Phase I & II Team;

The Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs.";

MALLI-Length CDNAS.";

BMBL; AK081019; BAC38117.1; -.

RMGD; MGI:2444166; C730016F09Rik.

RMGD; MGI:2444166; C730016F09Rik.

RMGD; MGO:0005756; C:extracellular; IEA.

GO; GO:0005759; P:hormon activity; IEA.

GO; GO:0007582; P:physiological processes; IEA.

RMGO; GO:0007582; P:physiological processes; IEA.

RICHEPRO; INROUGHS: IIIS/IGF/relax.

RR PFAMT; SM00049; INSULINB.

SMART; SM00078; IIGF; I.

SMART; SM00078; IIGF; I.

SMART; SM00078; IIGF; I.

SMART; SM00078; IIGF; I.

SM SEQUENCE I53 AA; I7093 MW; 967596AEACOCA387 CRC64;
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SEQUENCE FROM N.A.
STRAINE-CSTBL/61; TISSUE=Thymus;
MEDLINE-22154683;
The PANTOM Consortium,
the RIKEN Genome Exploration Research Group Phase I & II Team;
the RIKEN Genome Exploration Research Group Phase I & II Team;
whallysis of the mouse transcriptome based on functional annotation of
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
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Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                        C730016093HX.
Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
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Last sequence update)
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Last annotation update)
                                                                       153 AA
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MGD; MGI:2444166; C730016P09Rik.
GO; GO:0005576; C:extracellular; IEA.
                                                                                                                   Created)
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Mus musculus (Mouse).
                                                                                      Q8C4U6,
01-MRR-2003 (TrEMBLrel. 23,
01-MRR-2003 (TrEMBLrel. 23,
01-OCT-2003 (TrEMBLrel. 25,
Unknown EST.
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                                                                       PRELIMINARY;
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Best Local Similarity
Matches 66; Conserval
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                          133 GPETLCGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Meleagris.
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94.8%; Score 365; DB 11; Length 165;
Best Local Similarity 94.3%; Pred. No. 6.6e-40;
Matches 66; Conservative 1; Mismatches 3; Indels C
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89.4%; Score 344; DB 13; Length 153;
Best Local Similarity 88.6%; Pred. No. 3.5e-37;
Matches 62; Conservative 3; Mismatches 5; Indels (
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49 118 INSULIN-LIKE GROWTH FACTOR-I.
153 AA; 17295 MW; SAFIB5B8BD13C70B5 CRC64;
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IPRO04825; Ins/IGF/relax.
Prim; PRO049; Insulin; 1.
PRINTS; PRO0277; INSULINB.
SMART; SM00079; INSULINB.
PROSITE; PS00262; INSULIN; 1.
SEQUENCE 165 AA; 18473 MW; 2CEOD3DA981C93F8 CRC64;
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Last annotation update)
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01-NOV-1998 (TrEMBLrel. 08, Last seq
01-JUN-2003 (TrEMBLrel. 24, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                               93 CAPLKPTKAA 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAPIKPPKSA 118
                                                                                                                                                                                                                                                                                                                                                                   61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CAPLKPAKSA 70
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SOUR PRESENTATION OF THE PROPERTY OF THE PROPE

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45 GPETLCGAELVDTLQFVCGDRGFYFSKPTGYGPSSRRSHNRGIVDECCFGSCELRRLEMY 104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                             1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

Vong Q.P., Chan K.M., Cheng C.H.K.;

Vong Q.P., Chan K.M., Cheng C.H.K.;

"Common carp insulin-like growth factor-I gene: Genomic organization
and functional characterization of the S'-flanking region.";

Submitted (JAN-2002) to the RBBL/Genank/DDBJ databases.

-I- SIMELINIA LOCATION: SECRETED (BY SIMILARITY)

-I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

BMBL, 8465830; AAP78926.1;

HSSP; PO1343; 2GF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eŭkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinides; Cyprinus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Liver;
MEDLINE=56241923; PubMed=8680527;
Liang Y.H., Cheng C.H., Chan K.M.;
Liang Yi.H., Cheng C.H., Chan K.M.;
"Insulin-like growth leactor IEs2 is the predominantly expressed form of IGF in common carp (Cyprinus carpio).";
Mol. Mar. Biol. Biotechnol. 5:145-152(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 84.7%; Score 326; DB 13; Length 178; 1. Similarity 82.6%; Pred. No. 9.6e-35; 57; Conservative 6; Mismatches 6; Indels (
                                                                                                                                                                                    Length 161;
                                                                                                                                                                                                                          Indels
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
GO; GO:0007582; P:physiological processes; IEA.
PERONG PRO049; Insulin; 1.
PRINTS; PRO0277; INSULINB.
SMART; SMO0708; IIGF: INSULIN': 1.
PROSTIE; PSO0262; INSULIN': 1.
SEQUENCE 161 AA; 17879 MW; A2588523DFCE0429 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19687 MW; 7075A34FF379C459 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
                                                                                                                                                                                  84.7%; Score 326; DB 13;
82.6%; Pred. No. 8.6e-35;
tive 6; Mismatches 6;
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GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007812; P:hptsological processes; IEA.
D: GO:000782; P:phtsological processes; IEA.
PEAM; PF00049; Insulin; 1.
PRINTS; PR0027; INSULINE.
SMART; SM00078; IIGF; 1.
SEQUENCE: 178 AA; 19687 MW; 7075A34FF379C459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178 AA
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01-0CT-2000 (TrEMBLrel. 15, Last sequence
01-0CT-2003 (TrEMBLrel. 25, Last annotati
Insulin-11ke growth factor I subtype Ea2.
IGP-IEA2 OR IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cyprinus carpio (Common carp).
                                                                                                                                                                                                        Local Similarity 82.6
nes 57; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                            105 CAPVKPGKT 113
                                                                                                                                                                                                                                                                                                                                        61 CAPLKPAKS 69
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                                                                                                                                                                                        Query Match
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Q9IBIO,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carassius aurātus (Goldfish).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Carassius.
                                                                                                                                                                                                                                                             Daliri M., Appa Rao K.B.C., Kaur G., Garg S., Patil S., Totey S.M., "The expression of growth factor ligand and receptor genes in preimplantation stage buffalo embryos and oviductal epithelial
                                                         01-JUJ-1997 (TTEMBLIEL. 64, Last sequence update)
01-JUJ-1997 (TTEMBLIEL. 64, Last annotation update)
Pro-insulin like growth factor IA (IGFIA) (Fragment).
Bubalus bubalis (Domedic water buffalo).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae, Bovinae, Bubalus.
                                                                                                                                                                                                                                                                                                                                  Score 333.5; DB 6; Length 69;
Pred. No. 3.5e-36;
1; Mismatches 6; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
         69 AA.
                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86.6%;
88.6%;
                                               01-JUL-1997 (TrEMBLrel. 04,
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           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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Best Local Similarity
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                                                                                                                                                                                                                                               TISSUE=Lung;
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SEQUENCE
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Q9PWK2 RESULT 11

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Gaps

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Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases.
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091914
STATE OF THE PROPERTY OF THE P
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01-MAY-1999 (TERMELTE1. 10, Created)
01-MAY-1999 (TERMELTE1. 10, Last sequence update)
01-MAY-1999 (TERMELTE1. 10, Last sequence update)
01-UNA-2003 (TERMELTE1. 24, Last annotation update)
Insulin-like growth factor-I.
Carasius auratus (Goldfish).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Meopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Carassius.
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Kermouni A., Mahmoud S.S., Wang S., Moloney M., Habibi H.R.;

"Cloning of a full-length Insulin-like growth Factor-I complementary

INA in the goldfish liver and ovary and development of a quantitative

PCR method for its measurement.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCAPLKPAKAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Merazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Cetartiodactyla, Ruminantia, Pecora, Cervoidea,
Cervidae, Odocoileinae, Capreolus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Testis;
MEDLINE=20532861; PubMed=11078967;
Wagener A., Blottner S., Goritz F., Fickel J.;
"Detection of growth factors in the testis of roe deer (Capreolus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       h 83.9%; Score 323; DB 6; Length 66; Similarity 98.3%; Pred. No. 8.1e-35; 58; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             capreolus).",
Anim. Reprod. Sci. 64:65-75(2000).
Anim. Reprod. Sci. 64:65-75(2000).
- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
- I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; AF152588; AAF73227.1;
HSSP; P01343; 2GF1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Capreolus capreolus (Roe deer)
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PROSITE; PS00262; INSULIN; 1.
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SMART; SM00078; IlGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                    |||:|| |:
122 CAPVKPGKT 130
                                                    61 CAPLKPAKS 69
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SEQUENCE
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Best Local S
Matches 58
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09Y182
AC 09Y18
AC 09Y18
DT 01-MA
DT 0
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45 GPETLCGAELVDTLQFVCGDRGFYFSKPTGYGPNSRRSHNRGIVDECCFGSCELRRLEMY 104
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Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Ctenopharyngodon.
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0
C. SUBCELLUIAR 1997.

1. SUBCELLUIAR 1997.

2. I SUMILARITY: BELOATION: SECRETED (BY SIMILARITY).

2. I SUMILARITY: BELOAGE TO THE INSULIN/IGF/RELAXIN FAMILY.

R BASE; PO1343; ZGF1.

R GO; GO: 0005576; C: extracellular; IEA.

GO; GO: 00055779; F: hormone activity; IEA.

GO; GO: 0007582; P: physiological processes; IEA.

R GO; GO: 0007582; P: physiological processes; IEA.

R Fam: Pro0049; Insulin; I.

R PRINTS; PRO0277; INSULINB.

R PRAST; SNO0078; ILGF, 1.

R PROSITE; PSO0262; INSULINB.

R PROSITE; PSO0262; INSULINB.

R PROSITE; PSO0262; INSULINB.

R PROSITE; PSO0262; INSULINB.

R PROSITE; PSO0262; INSULINB.
                                                                                                                                                                                                                                                                                                                                                                                               83.9%; Score 323; DB 13; Length 161;
81.2%; Pred. No. 2.1e-34;
ive 7; Mismatches 6; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.4%; Score 321; DB 13; Length 117;
82.6%; Pred. No. 2.8e-34;
iive 5; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE 117 AA; 13050 MW; CA00DAFF7913A34A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-UUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor-I (Fragment)
Ctenopharyngodon idella (Grass carp).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO; GO:0005576; C:extracellular; IEA.
GO; GO:000519; F:hormone actrvity; IEA.
GO; GO:000519; F:hormone actrvity; IEA.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
Pfam; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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les 56; Conservative 7
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Query Match
Beet Local Similarity 82.000,
Beet Local Similarity 82.000,
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61 CAPLKPAKSA 70
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Best Local Similarity
For 56; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Liver;
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SIGNAL
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SEQUENCE FROM N.A.
MEDLINE=21261964; PubMed=11368902;
Chen M.H.C., Lin G.H., Gong H.Y., Weng C.F., Chang C.Y., Wu J.L.;
The characterization of prepro-Insulin-like growth factor-1 Ea-2
expression and Insulin-like growth factor-1 genes (devoid 81 bp) in
the zebrafish (Danio rerio).";
Gene 268:67-75(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

Chen M.H.C., Lin G., Gong H., Weng C., Chang C., Wu J.;

Chen M.H.C., Lin G., Gong H., Weng C., Chang C., Wu J.;

"The characterization of prepro-Insulin-like growth factor-1 genes (devoid 81 bp) in the zebrafish (Danio retrio).";

Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
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82.6%; Pred. No. 3.9e-34;
ive 5; Mismatches 7; Indels
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EMBL; AR270703; AAK58609.1; JOINED.
EMBL; AR214545; AAL5846.1; -.
EMBL; AR314545; AAL5846.1; -.
EKRB; P01308; LLNP.
ZFIN; ZDB-GENB-010607-2; igf1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:hormone activity; IEA.
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                               161 AA
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                                                                                                                                               PRT;
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PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 82.6
                                                                                                                                               PRELIMINARY;
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61 CAPVKTGKS 69
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Q90VV9
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XX MEDLINE=3024477; PubMed=1406698;

XB Diguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

RD Diguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

RD Diguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

RT "Nucleotide sequence and tissue distribution of three insulin-like growth factor I proformore in salmon.";

RD Mol. Redcorinol. 6:1202-1210(1992).

-! SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-! SUBCELLULARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; M81911; AAB59947.1; -.

DR MSD; P01343; 2GF1.

DR GO; GO:0005576; C:extracellular; IEA.

DR GO; GO:0005576; C:extracellular; IEA.

DR GO; GO:0005579; F:hormone activity; IEA.

DR GO; GO:0005579; F:hormone activity; IEA.

DR GO; GO:0005579; Insulin; 1.

DR Ffam; PR00499; Insulin; 1.

DR SWART; SM00078; IIGF; 1.

SWART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=90190659; PubMed=2628735;
Cao Q.P. Duguay S.J. Plaetekaya E.. Steiner D.F., Chan S.J.;
"Nuclectide sequence and growth hormone regulated expression of salmon
insulin-like growth factor I mRNA.";
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                                                   01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-2003 (TrEMBLrel. 24, Last amoutation update)
01-UN-2003 (TrEMBLrel. 24, Last amoutation update)
11-Nulln-11ke growth factor I precursor (Fragment).
Cncorhynchus kisutch (Coho salmon).
Cncorhynchus kisutch (Coho salmon).
Actinopterygii, Neopterygiii, Teleostei, Euteleostei;
Protacanthopterygiii, Salmoniformes; Salmonidae; Oncorhynchus.
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01-OND-2003 (TrEMBLrel. 24, Last annotation update)
01-OND-2003 (TrEMBLrel. 24, Last annotation update)
1nsulin-like growth factor 1 precursor (Fragment).
Salmo salar (Atlantic salmon).
Sukaryota; Mectazoa; Chordata; Craniata, Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
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INSULIN-LIKE GROWTH FACTOR
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19 >88 INSULIN-LIKE GROWTH FACTOF
116 116
116 AA, 12697 MW; CSF378915179D89D CRC64;
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80.0%; Pred. No. 6.8e-34;
iive 7; Mismatches 7;
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01-NOV-1996 (TrEMBLrel. 01,
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PRELIMINARY;
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Q91231
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                                        TISSUE=Liver;

**REDILINE=930-4477; PubMed=1406699; Dickhoff W.W.;

**A MEDILINE=930-4477; PubMed=1406699; Dickhoff W.W.;

**Duguay S.J., Park L.K., Samadpour M., Dickhoff W.W.;

T growth factor I.K., Samadpour M., Dickhoff W.W.;

MOL-Endocrinol. 6:1202-12110 (1992)

-!- SUBCELULAR LOCATION: SECRETED (BY SIMILARITY).

R EMBL; M81904; AAA18212.1; -.

R GO; GO:0005576; C:extracellular; IEA.

R GO; GO:0005797; Prommone activity; IEA.

R GO; GO:0007582; P:physiological processes; IEA.

R InterPro; IPRO04825; InsIGF/relax.

R Pfam; PRO049; InsUllin; 1.

R PRAMF; SM0077; INSULINE.

R SMARF; SM0077; INSULINE.
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"Nucleotide sequence and tissue distribution of three insulin-like
growth factor I prohormones in salmon.";
MOI. Endocrinol. 6:1202-121922).
MOI. Endocrinol. 6:1202-121922).
MOISCELULAR LOCATION: SECRETED (BY SIMILARITY).
MOISCELULAR LOCATION: SECRETED (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I precursor (Fragment).
Salmo salar (Atlantic salmon).
Salmo salar (Atlantic salmon).
Actinopterygii, Neopterygii, Teleostei, Euteleostei,
Protacanthopterygii, Salmoniformes; Salmonidae, Salmo.
                                                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                                                                                     82.6%; Score 318; DB 13; Length 117; 80.0%; Pred. No. 6.9e-34; cive 7; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                        1 1 POTENTIAL.
<1 18 POTENTIAL.
19 8 INSTLIN-LIKE GROWTH FACTOR I.
117 AA; 12867 MW; A97666EEEFF526EAC CRC64;
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HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:000579; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IRR004825; Ins/IGF/relax.
Pfam; PR0049; Insulin; 1.
PRNUS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Liver;
MEDLINE=93024477; PubMed=1406698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                      PROSITE, PS00262; INSULIN, 1.
                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 80.0
les 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||:| |:|
79 CAPVKSGKAA 88
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                              SEQUENCE FROM N.A.
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 NCBI_TaxID=8030;
                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                         Signal.
NON TER
SIGNAL
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                       78
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                                                                                                                                       Gaps
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRANIE-B1G Qualicum River; TISSUE-Liver;
MEDLINE-91247552; PubMed-7683374;
Wallis A.E., Devlin R.H.;
"Duplicate insulin-like growth factor-I genes in salmon display alternative splicing pathways";
Mol. Endocrinol. 7:409-422(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82.6%; Score 318; DB 13; Length 149;
80.0%; Pred. No. 9e-34;
iive 7; Mismatches 7; Indels
                POTENTIAL.
INSULIN-LIKE GROWTH FACTOR I.
1 1 POTENTIAL.
19 INSULIN-LIKE GROWTH FACTOR
145 145
145 AA, 15885 MW, 3D94EDF477268FC4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor-I.
                                                                                                                                                                                                                                                                                                                                                                        149 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56; Conservative
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                                                                                                                                                                                                                                             61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                      CAPVKSGKAA 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 CAPLKPAKSA
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161 AA.
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Megalobrama amblycephala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
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                                                                                                                                                                                                                    rissum=Liver;
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Best Local S
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Q91230
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Liver;
MEDLINE=90190659; PubMed=2628735;
Cao Q.P. Duquay S.J. Plisetskaya E., Steiner D.F., Chan S.J.;
"Nucleotide sequence and growth hormone regulated expression of salmon insulin-like growth factor I mRNA.";
Mol. Endocrinol. 3:2005-2010(1989).
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MEDLINE=3024477; PubMed=1406688;

Muguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

Duguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

Duguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

Duguay S.J. Park L.K., Samadpour M., Dickhoff W.W.;

Transchedide sequence and tissue distribution of three insulin-like growth factor I professes in salmon.;

Mol. Endocrinol. 6:1202-1210(1992).

I. SINGELLINAR LOCATION: SECRETED (BY SIMILARITY).

- I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; M81913; AAA49413.1;

- I- SIMILARITY: BAA49413.1;

- I- SIMILARITY: BAA49413.1;

- GO, GO:000576; C:extracellular; IEA.

GO, GO:000576; C:extracellular; IEA.

RO; GO:000576; C:extracellular; IEA.

RO; GO:000576; D:physiological processes; IEA.

INTERPORTE: PRO0427; INSULNE.

RR PRONTE; SMO0778; INSULNE.

RR PROSTIE; PS00262; INSULN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                  Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus. NCBI_TaxID=8019;
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INSULIN-LIKE GROWTH FACTOR I.
R -> X (IN REF. 1).
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16968 MW; 022FD3CA39CA3160 CRC64;
                                                                                                                                                       01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1996 (TrEMBLrel. 24, Last annotation update)
10sulin-1ike growth factor I precursor (Fragment).
Oncorhynchus kisutch (Coho salmon).
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01-UNN-2001 (TrEMBLrel. 17, Created)
01-UNN-2001 (TrEMBLrel. 17, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I.
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                                                                                                                                 155 AA
                                                                                                                                 PRT;
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                                                                                                                                 PRELIMINARY;
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19 >
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155 AA;
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Les 56; Conserv
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NON TER
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Q98SR6
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The Bai J., Lao H., Ye X.;

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To This Substitute of the Substitution of Subs
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Megalobrama.
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Oncorhynchus tschawytscha (Chinook salmon) (King salmon).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TaxID=74940;
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MEDLINE=93247592; PubMed=7683374;
Wallis A.E., Devlin R.H.;
"Duplicate insulin-like growth factor-I genes in salmon display alternative splicing pathways.";
Mol. Endocrinol. 7:409-422(1993).
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Devlin R.H.;
Submited (OCT-1994) to the EMBL/GenBank/DDBJ databases.
-!- SINGELLUIAR LOCATION: SECRETED (BY SIMILARITY).
-!- SINGELLUIAR TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; U15961; AA67267-1; --
PIR; C54270; C54270;
G90; G0:0005176; C:extracellular; IEA.
G0; G0:0005179; Fibormone activity; IEA.
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81.2%; Pred. No. 9.7e-34;
Live 6; Mismatches 7; Indels
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SEQUENCE 161 AA; 17949 MW; A7B220C4C08127A8 CRC64;
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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from the salmon genome.";
DNA Cell Biol, 13:555-559(1994).
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                                      Oncorhynchus keta (Chum
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                                                                                                                                                                                                                                                                                                                                                                                                       1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Liurant Tong F.D.;

Liurant A. Tong F.D.;

The generic-specific differences of IGF-1 between the triangular Trbream (MegaLobrama Lerminalis) and cyprinoid fish.";

Libram (MegaLobrama Lerminalis) and cyprinoid fish.";

Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.

REMBL; AY247412; AA089239.1; -...

RO; GO:0005576; C:extracellular; IEA.

RO; GO:0005579; F:physiological processes; IEA.

InterPro; IPR004825; Ins/IGF/relax.

R Pfam; FR00049; InsULINB.

R PROSTI: SM00078; IIGF; 1.

R PROSTI: SM00078; IIGF; 1.

R PROSTI: SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-UUN-2003 (TrEMBLrel. 24, Created)
01-UUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OUT-2003 (TrEMBLrel. 25, Last annotation update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
11sulin-like growth factor I.
Megalobrama terminalis.
Megalobrama terminalis.
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Megalobrama.
NCBI_TaxID=75354;
                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                        Length 161;
                                                                                                                                                                                                                                                                 Score 318; DB 13; Length 1.
Pred. No. 9.7e-34;
7; Mismatches 7; Indels
GO, GO:0007582; P:physiological processes; IEA.
InterPro; IPR004825; InsJIGF/relax.
InterPro; IRN004825; InsJIGF/relax.
PRO0049; InsUnlin; 1.
PRINTS; PR00077; INSULINB.
SWART; SW00078; IIGF, INSULIN; 1.
PROSTIE; PS00262; INSULIN; 1.
SEQUENCE 161 AA; 17763 MW; A5A85D1213773F67 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161 AA; 17905 MW; A49327B4C08120D8 CRC64;
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01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-UND-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161 AA
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CAPVKTGKT 113
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                                                                                                                                                                                                                                                                                                    Similarity
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Best Local 9
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P81268;
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Koval A., Kulik V., Duguay S., Plisetskaya E., Adamo M.L.,
Roberts C.T.Jr., Leroith D., Kavsan V.;
Characterization of a salmon insulin-like growth factor I promoter.";
DNA Cell Biol. 13:1057-1062(1994).
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MEDILINE-94296559; PubMed=8024699;
Kavsan V.M., Gebenjuk V.A., Koval A.P., Skorokhod A.S.,
Roberts C.T.Gr., Leroith D.;
"Isolation of a second nonallelic insulin-like growth factor I gene
                                                                                                                                                                                              SEQUENCE FROM N.A.

Kavaan V.M., Koval A.P., Grebenjuk V.A., Chan S.J., Steiner D.F.,
Poberts C.T. Jr., Leroith D.;

"Structure of the Chum Salmon Insulin-Like Growth Factor I Gene.";

DNA Cell Biol, 11:729-737(1993).
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Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Taleostei; Buteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TAXID=74940;
Eukaryota; Metazoa; Choradta; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleosted; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gebenjuk V.A., Skorokhod A.S., Anoprienko O.V., Koval A.P., Submitted (MY-1998) to the EMBL/GenBank/DDBJ databases.

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY)
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
R EMBL, AP063216; AAC18833.1;
R GO, GO:0005576; C:extracellular; IEA.
R GO; GO:0005576; C:extracellular; IEA.
R GO; GO:000519; P:hormon activity; IEA.
R GO; GO:000519; P:hormon activity; IEA.
R GO; GO:000519; P:hormon activity; IEA.
R FEAR; PF00049; Insulin; 1.
R PRINTS; PR00277; INSULINB.
R PRANT; SM00079; IIGF; 1.
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80.0%; Pred. No. 1.2e-33;
iive 7; Mismatches 7; Indels
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SEQUENCE 188 AA; 20792 MW; F4CEB6D05E0F24B8 CRC64;
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
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45 GPETLCGAELVDTLQFVCGERGFYFSKPTGYGPNARRS--RGIVDECCFQSCELRRLEMY 102
                                                                                                                                                                                                                                                                                                                                                                                 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wim D.S.;

"Expression of IGF-Ib cDNA clone isolated from Paralichthys olivaceus
"Expression of IGF-Ib cDNA clone isolated from Paralichthys olivaceus
in mammalian GMO cell line using green fluorescence protein (GPP)
tagging: secretory production of big IGFIb-GFP fusion proteins from
stable transfected GMO cell outlure.";
Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases.
-- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
HSSP: PO1343; 2GF1.
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                                                                                                                                                                                                                                                                                                                                         2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Gaps
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Paralichthys olivaceus (Plounder).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;

Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;

Pleuronectoidei; Paralichthyidae; Paralichthys.
                                                                                                                                                                                                                                                                                              Length 186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 159;
                                                                                                                                                                                                                                                                                                                                      6; Indels
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                                                                                                                                                                                                                            CHAIN 45 112 insulin-like growth factor SEQUENCE 186 AA; 20539 MW; E9E7F0F3EEB4C3E7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00277; INSULINB.
SMART; SM00708; IIGF, INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
SEQUENCE 159 AA; 17541 MW; 8B61DC89831E0865 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Preproinsulin-like growth factor Ia.
                                                                                                                                                                                                                                                                                            78.7%; Score 303; DB 13;
78.6%; Pred. No. 1.1e-31;
cive 7; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 302; DB 13;
Pred. No. 1.2e-31;
GO, GO:0007582; P:physiological processes; IEA.
InterPro; IRR004825; Ins/IGE/relax.
InterPro; IRR003234; Mollusc_ins.
Pari, PR00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
PRODO; PD01667; Mollusc_ins; 1.
PROMOT; SM0078; INST. 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO, GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro: IPRO04825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   159 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 78.4%; Score 302; DB Local Similarity 77.1%; Pred. No. 1.2e es 54; Conservative 9; Mismatches
                                                                                                                                                                                                            Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1998 (TrEMBLrel. 08, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 78.6
Matches 55, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103 CAPAKTSKAA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                             45
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                                                                                                                                                                                    Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                093607
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       셤
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Differential expression of insulin-like growth factor I and II mRNAs during embryogenesis and early larval development in rabbitfish,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Preproinsulin-like growth factor I precursor.
Siganus guttatus (Rabbitfish).
Siganus guttatus (Rabbitfish).
Actinopterygii, Neopterygii, Teleostei; Euteleostei; Neoteleostei, Acanthomorpha, Acanthomorpha, Acanthomorpha, Acanthomorpha, Siganus.
Acanthuroidei; Siganidae; Siganus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE-22027815; PubMed=12030772;
Ayson F.G., de Jesus E.G., Moriyama S., Hyodo S., Funkenstein B.,
Gertler A., Kawauchi H.;
                                     MEDLINE=92247592; PubMed=7683374; Wallis A.E., Devlin R.H.; court genes in salmon display "Duplicate insulin-11ke growth factor-I genes in salmon display alternative splicing pathways."; Mol. Endocrinol. 7:409-422(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 82.6%; Score 318; DB 13; Length 188; Local Similarity 80.0%; Pred. No. 1.2e-33; nes 56; Conservative 7; Mismatches 7; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL, ULS960; AAA67266.1; --

REMEL, ULS960; AAA67266.1; --

PIR; A54270; A54270.

PIR; B54270; A54270.

RESP: POLO1343; 2GF1.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005576; C:extracellular; IEA.

RO; GO:0005576; D:physiological processes; IEA.

R PÉBH; PP00049; Insulin; 1.

R PRINTS; PR00049; Insulin; 1.

R PRINTS; R00078; IIGF; 1.

R PRANTS; SM0078; IIGF; 1.

R PROSITE; PS00662; INSULIN; 1.

R PROSITE; PS00662; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                         Submitted (SEP-1994) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                 Devlin R.H.; Submitted (OCT-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Siganus guttatus.";
Gen. Comp. Endocrinol. 126:165-174(2002).
EMBL; AY198184; AA047742.1;
GO; 00:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       105 CAPVKSGKAA 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 CAPLKPAKSA 70
           SEQUENCE FROM N.A.
                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                      TISSUE=Liver;
Devlin R.H.;
                                                                                                                                                                                                            TISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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Matches
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Q800Y5
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Length 186;

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45 GPETLCGAELVDTLQFVCGERGFYFSKPTGYGPNARRS--RGIVDECCFQSCELRRLEMY 102
                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Actinopterygii, Neopterygii, Teleostei, Euteleostei, Neoteleostei,
Acanthomorpha, Acanthopterygii, Percomorpha, Perciformes, Percoidei,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Liver;
Lynn S.G., Shepherd B.S.;
"Cloning of insulin-like growth factor I from yellow perch (Perca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ch 78.4%; Score 302; DB 13; Length 186; I Similarity 77.1%; Pred. No. 1.5e-31; 54; Conservative 9; Mismatches 5; Indels 5
                                                                                                                                                                                                                                                   Query Match 78.4%; Score 302; DB 13; Length 1 Best Local Similarity 77.1%; Pred. No. 1.5e-31; Matches 54; Conservative 9; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          flavescens).";
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY332492; AAP93861.1; -.
            GO; GO:000576; C:extracellular; IEA.
GO; GO:000576; F:hormone activity; IEA.
GO; GO:0007582; P:hysiological processes; IEA.
GO; GO:0007582; P:physiological processes; IEA.
PETPRO; PR0049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00709; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
SEQUENCE 186 AA; 20547 MW; ASOIAES48A9EBOFF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Potential. 4CB1028EA95E2D35 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel. 25, Created)
(TrEMBLrel. 25, Last sequence update)
(TrEMBLrel. 25, Last annotation update)
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01-0CT-2003 (TrEMBLrel. 25, Created).
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Insulin-like growth factor 1 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Insulin-like growth factor I precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Perca flavescens (Yellow perch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL 1 44 P
SEQUENCE 186 AA; 20545 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103 CAPAKTSKAA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103 CAPAKTSKAA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                     70
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                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CAPLKPAKSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 CAPLKPAKSA
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=8167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percidae, Perca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-0CT-2003
01-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q7T1A7
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Q7T107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                Expurence From N.A. Kim K.-S., Nam T.-J., Lee Y.-C., Kim S.-H., Kim K.-S., Nam T.-J., Lee Y.-C., Insulin-like growth factor I cDNA "Molecular cloning and expression of insulin-like growth factor I cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   093527 PRELIMINARY; PRT; 186 AA.
093527,
01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-NOV-1998 (TrEMBLrel. 24, Last annotation update)
11 Insulin-like growth factor I.
Paralichthys olivacus (Flounder).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostcomi;
Actinopersyli; Neopterygli; Perconorpha; Buteleostei; Acanthomorpha; Acanthopersyli; Perconorpha; Pleuronectidemes;
Pleuronectoidei; Paralichthyidae; Paralichthys.
                                                                                                                                                                                                                                                                                                  Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neoperygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;
Pleuronectoidei; Paralichthyidae; Paralichthys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from flounder liver.";

Submitted (1907) to the EMBL/GenBank/DDBJ databases.

-: SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-: SIMILARITY: BELONGS TO THE INSULIN/IGP/RELAXIN FAMILY.

REMBL: APO16922; AAB94052.1;

REMBL: APO16922; AAB94052.1;

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005179; F:hormone activity; IEA.

RGO; GO:0007582; P:hormone activity; IEA.

RGO; GO:0007982; F:hormone activity; IEA.

R HASPP: P:physiclogical processes; IEA.

R HASPP: PRO04925; InsUlin; 1.

R PRINTS; PRO0277; INSULINE.

R SMART; SMO0079; ILGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 302; DB 13; Length 185; Pred. No. 1.4e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -i. SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-i. SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; AF061278; AAC62228.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (APR-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PS00262; INSULIN; 1.
185 AA; 20414 MW; 8A898369DF567BB3 CRC64;
                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                  185 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9; Mismatches
                                                                                                                                                              Created)
                                                                                                                                                                                                                                                          IGF-1.
Paralichthys olivaceus (Flounder).
                                                                                                                                                                                                                          Insulin-like growth factor I.
                                                                                                                                                            01-JUN-1998 (TrEMBLrel. 06, 01-JUN-1998 (TrEMBLrel. 06, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 78.4%;
1 Similarity 77.1%;
54; Conservative
                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103 CAPAKTSKAA 112
103 CAPAKTSKAA 112
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8255;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tanaka M.
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                                                                  RESULT 29
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CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                   Moronidae, Morone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=34816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=46259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
61
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                                                                                                                       RESULT 34
Q800M9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 GPETLCGAELVDTLQFVCGERGFYFSKPTGYGFNARRS--RGIVDECCFQSCELRRLEMY
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                Bukaryota; Metazoa; Chordafa; Craniata; Vertebrata; Buteleostomi; Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidei; NCEI_TaxID=13489;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
10-OCT-2003 (TrEMBLrel. 25, Last annocation update)
Insulin-like growth factor I (Fragment)
Morone chrysops x Morone saxatilis (White bass x Striped bass).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Moronidae; Morone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fruchtman S., Hawkins M.B., Borski R.J.; "Cloning of IGF-I and the type I IGF receptor cDNAs from temperate
                                                                                                                                                                     SEQUENCE FROM N.A.
Gisbert E., Villeneuve L.A.N., Cahu C., Zambonino-Infante J.L.;
Gisbert E., Villeneuve L.A.N., Cahu C., Zambonino-Infante J.L.;
Fiffect of vitamin A level during the development of sea bass
(Dicentrarchus labrax) larvae.";
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AJS79342; CAE18111.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                              78.2%; Score 301; DB 13; Length 104; 77.1%; Pred. No. 1e-31;
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EMBL, Ref02669; AA073854.1; -

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005182; P:physiological processes; IEA.

InterPro; IPR004925; Ins/IGF/relax.

InterPro; IPR003334; Mollusc_ins.

PRINTS; PR00277; INSULIN.

PRODOM; PR00277; INSULIN.

PRODOM; PR00277; INSULIN.

SWART; SM00078; IGF; 1.

SWART; SM00078; IGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.2%; Score 301; DB 13; Length 1 llarity 77.1%; Pred. No. 1.1e-31; Conservative 8; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                          104 104 11339 MW; 5CC569AB0BBF6FF2 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8; Mismatches
  Dicentrarchus labrax (European sea bass).
                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CAPLKPAKSA 70
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Q800N0
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21 GPETLCGAELVDTLQFVCGERGFYFSKPTGYGFNARRS--RGIVDECCFQSCELRRLEMY
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                                                                                                                                                                                                                                                                                                 01-UTN-2003 (TrEMBLrel. 24, Created)
01-UTN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
101-OCT-2003 (TrEMBLrel. 25, Last annotation update)
101-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Morone saxtilis (Striped bass)
Morone saxtilis (Striped bass)
101-OCT-2003 (Tremple bass)
102-OCT-2003 (Tremple bass)
103-OCT-2003 (Tremple bass)
103
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Cloning of IGF-I and the type I IGF receptor cDNAs from temperate
bass species.";
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
Blani, AR407867, AA073855.1,
GO; GO:0005779; F:hormone activity; IEA.
GO; GO:0005782; P:pbysiological processes; IEA.
InterPro; IPR004825; Insl/IGF/relax.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bass species.";
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PRO0277; INSULINB.
PRODOM; PDD1567; MOLIUSC_INS; 1.
SMART; SMO0078; IIGF; 1.
PROSITE; PSO0262; INSULIN; 1.
                                                                                                                                                                                                                          PRELIMINARY;
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CAPAKTGKAA 88
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PRELIMINARY;
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    79 CAPAKTGKAA 88
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                                                                                                                                                                                                                                              1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                            21 GPETLCGABLVDTLQFVCGERGFYFSKPTGYGPNARRS--RGIVDECCFQSCELRRLEMY 78
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                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                01-0TM-2003 (TrEMBLrel. 24, Created)
01-0TM-2003 (TrEMBLrel. 24, Last sequence update)
01-0TM-2003 (TrEMBLrel. 25, Last annotation update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Insulin-like growth factor I (Fragment).
Morone americana (White perch).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Actinopterygii, Neoperygii, Teleostei; Euteleostei;
Actinopterygii, Neoperygii, Teleostei; Euteleostei;
Moronidae, Morone.
NCBI_TaxID=46260;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fruchtman S., Hawkins M.B., Borski R.J.; "Cloning of IGF-I and the type I IGF receptor cDNAs from temperate
                                                                                                                                                                                                                    2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78.2%; Score 301; DB 13; Length 108; 77.1%; Pred. No. 1.1e-31; ive 8; Mismatches 6; Indels 2
                                                                                                                                                                                             Length 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bass species.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
REBL, AF402672, AAO7385711.
GO; GO:0005572; AAO7385711.
R GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
R GO; GO:000582; P:physiological processes; IEA.
R Interpro; IPR003234; Mollusc_ins.
R Pfam; PP00049; Insulin; 1.
R PRINTS; PR00277; INSULINS.
R Problom; PD012667; Mollusc_ins; 1.
R SMART; SM0078; IIGF; 1.
R PROSITE; PR00277; INSULINS.
R PROBITE; PR00277; INSULINS.
R PROSITE; PR00277; INSULINS.
                                                                                                                                                                                          Score 301; DB 13; Length 1
Pred. No. 1.1e-31;
8; Mismatches 6; Indels
                                                                                                                                                                   108 AA; 11768 MW; 7B9466A89CC569A8 CRC64;
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EMBL; AF402671; AA073856.1; -..
GO; GO:0005576; C:extracellular; IEA.
GO; GO:000576; C:extracellular; IEA.
GO; GO:0005782; P:byamone activity; IEA.
GO; GO:0007829; P:byamone activity; IEA.
GO; GO:0007829; P:byamone activity; IEA.
InterPro; IPR004825; Ins/IGF/relax.
InterPro; IPR004825; Ins/IGF/relax.
InterPro; IPR004825; Ins/IGF/relax.
FRINTS: PR0049; Insulin; 1.
FRINTS: PR00557; Mollusc_ins; 1.
SMART: SM00078; IIGF; 1.
PROSITE: PS00262; INSULIN; 1.
NON_TER 108 108
SEQÜENCE 108 AA; 11768 MW; 7B9466A89CC559A8 GE
                                                                                                                                                                                            78.2%;
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SEQUENCE
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TO 11-2012-1999 (TERBELTAL) OF CREAGE.

TO 1017-1999 (TERBELTAL) OF CREAGE.

TO 1017-1999 (TERBELTAL) OF CREAGE.

DE 11-2011-1114 STOCK | SECURITY | SEC
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GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
          7; Mismatches
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            54; Conservative
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                                                                                                                                                      61 CAPLKPAK 68
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last amnotation update)
01-JUN-2003 (TrEMBLrel. 24, Last amnotation update)
Prepro insulin-like growth factor I precursor.
Oreochromis mossambicus (Mozambique tilapla) (Tilapla mossambica).
Bukaryota, Metazoa, Chordate, Craniata, Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomotpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=97418967; PubMed=9275043;
Reinecke M., Schmid A.C., Ermatinger R., Loffing-Cueni D.N.;
"Insulin-line growth factor I in the teleost Oreochromis mossambicus
"Insulin-line growth factor I is the teleost Oreochromis mossambicus
logalization.";
insulin-like growth factors gene and promoter region.";
Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
-!- SUDCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; AF033796; AAB86652.1; -.
R GO; GO:0005576; C:extracellular; IEA.
R GO; GO:0005576; C:extracellular; IEA.
R GO; GO:0005582; P:physiological processes; IEA.
R InterPro; IPR00425; Ins/IGF/relax.
R FRINTS; PR00409; Insulin; 1.
R PRINTS; PR0077; INSULINB.
R PRINTS; PR0077; INSULINB.
R PROSTE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               th 78.2%; Score 301; DB 13; Length 182; Similarity 79.4%; Pred. No. 1.9e-31; 54; Conservative 7; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 182;
                                                                                                                                                                                                                                                                                                                                                                                               INSULIN-LIKE GROWTH FACTOR I.
2FICE0A3284D6CD1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Endoctionary 138:3613-3619(1997).

-i- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-i- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; Y10830, CAA1789.1; -.

HSSP; P01343; 2GF1.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:000576; F:hormone activity; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005189; F:hormone activity; IEA.

HGEPPPO; F:hormone activity; IEA.

HGEPPPO; F:hormone activity; IEA.
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POTENTIAL.
DAAB54768CA4C24C CRC64;
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Pred. No. 1.9e-31;
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                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
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182 PO
20208 MW;
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45 182 II
182 AA; 20136 MW;
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PRINTS; PR00277; INSULINB.
SMART; SM00078; IlGF; 1.
PROSITE; PS00262; INSULIN; 1.
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79.4%;
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| CAPVKTPK 110
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182 AA;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cichlidae, Oreoch
NCBL TaxID=8127;
                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
SEQUENCE
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P79824
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                                                                                                                                                                                                                                                                                                               IGF-I.
Paralichthys olivaceus (Flounder).
Paralichthys olivaceus (Flounder).
Paralichthys inetazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygli; Neopterygli; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopperygli; Percomorpha; Pleuronectiformes;
Pleuronectoidei; Paralichthyidae; Paralichthys.
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SMART; SM00078; IIGF, IIGF,
PROSITE; PS00262; INSULIX; 1.
SEQUENCE 186 AA, 20529 MW; 479D12CEA95E3D75 CRC64;
                                                                                                                                                                                                                                       01-MAY-2000 (TrEMBLrel. 13, Created)
1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
Preproinsulin-like growth factor Ib.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76.6%; Score 295; DB 13; 75.7%; Pred. No. 1.2e-30; ive 9; Mismatches 6;
                                                                                                                                                                                                      186 AA.
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ne : 39.8102 secs
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                          OM protein - protein search, using sw model
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February 25, 2004, 06:18:42; Search time 10.7299 Seconds (without alignments) 339.696 Million cell updates/sec Run on:

Title: Perfect score: Sequence:

US-10-066-009A-1 385 1 GPETLCGAELVDALQFVCGD.....SCDLRRLEMYCAPLKPAKSA 70

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

141681 seqs, 52070155 residues Searched:

141681 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt_42:*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	-	28	547 cavi	s sns s	~	boa t	P05019 homo sapien	~	2 orycto	7 capra	_	P08025 rattus norv	P08024 rattus norv	P05017 mus musculu	_	٥,	_	_				Q02815 oncorhynchu			Q08279 cavia porce		1	9	10	P09535 mus musculu	seguu	2369	0134
QI		IGF1_HORSE	IGF1_CAVPO	IGF1_PIG	IGFA_HUMAN	IGF1_BOVIN	IGFB_HUMAN		IGF1_RABIT	IGF1_CAPHI	IGF1 SHEEP	IGFA RAT	IGFB RAT	IGFA_MOUSE	IGFB_MOUSE	IGF1_COTJA	IGF1_CHICK	IGF1_XENLA	IGFA_CYPCA	IGFB_CYPCA	IGF1_ONCKI	IGF1_ONCMY	IGF2_ONCMY	IGF2 MUSVI	IGF2_CAVPO	IGF2_HUMAN	IGF2_CHICK	IGF2 BOVIN	IGF2 SHEEP	IGF2 MOUSE		IGF2 PIG	IGF2_RAT
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P22618 myxine glut P07453 myoxocephal P01336 gadus calla P01338 batrachoidi P01338 bydrolagus P01327 chinochilla P12708 zaocys dhum P12703 alligator m P01339 thunnus thy P07454 anser anser P01334 crotalus at
IGF MYXGL INS_MYOSC INS_GADCA INS_BATSP INS_BATSP INS_HYDCO INS_ALIBR INS_ALLMI INS_ALLMI INS_THUTH INS_THUTH INS_RNSAN INS_GROAT
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ALIGNMENTS

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                                                                  20 GPETLOGAELVDALÓFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 79
                                             1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                        Gaps
                                                                                                                                                                                                                                                                                                                                                          Otte K., Rozell B., Gessbo A., Engstrom W.;
"Cloning and sequencing of an equine insulin-like growth factor I cDNA and its expression in fetal and adult tissues.";
Gen. Comp. Endocribol. 102:11-15(1996).
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a
                                                                                                                                                                                                                                                                          Būkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
NCBL_TaxID=9796;
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                                                                                                                                                                         IGF1 HORSE STANDARD; PRI; LLL MA.
P51458;
01-0CT-1996 (Rel. 34, Last sequence update)
01-0CT-2996 (Rel. 34, Last sequence update)
10-0CT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
  Length 122;
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                        Indels
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INSULIN-LIKE GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5A935B334435C9F9 CRC64;
100.0%; Score 385; DB 1;
100.0%; Pred. No. 1.4e-40;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 385; DB 1;
Pred. No. 1.4e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                              much higher growth-promoting activity.
-!- SUBCELLUTAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U28070; AAA68952.1; -.
HSSP; P01343; IGF1.
InterPro; IPRO04825; Ins/IGF/relax.
InterPro; IPRO04825; InsUin; 1.
PRINTS; PRO0277; INSULINB.
SMART; SM00798; IIGF. 1.
INSULINB: INSULINB.
INSULING INSULING.
Insulin family; Growth factor; Plasma; Signal.
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SIMILARITY.
SIMILARITY.
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TISSUE=Liver;
MEDLINE=97013467; PubMed=8860303;
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  Ouery Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                           70
                                                                                                                  80 CAPLKPAKSA 89
                                                                                                                                                                                                                                                                   Equus caballus (Horse)
                                                                                           61 CAPLKPAKSA
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Best Local Similarity
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IGF1_HORSE
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                                                                                   49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                           1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
NGCBI_TaxID=10141;
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1-AUG-1990 (Rel. 15, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 130;
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100.0%; Pred. No. 1.5e-40;
iive 0; Mismatches 0;
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PIR; S12719; IGGP1.
HSSP: P01343; IGGP1.
INCEPPC; IPRO04825; INS/IGF/relax.
Pfam; PR00277; INSULINB.
SMART; SM00078; INSULINB.
SMART; SM00078; IGF; 1.
INSULINB; PR0527; INSULINB.
SROSITE; PS0262; INSULIN; 1.
INSULIN family; Growth factor; Plasma; Signal.
SIGNAL
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                                                                                                                                                                                                                                                                                            PRT;
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MEDLINE=90332447; PubMed=2377480;
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    Conservative
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P01343;
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SHAPHARA
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STRAIN=White Landrace; TISSUB=Liver;

MEDLINE=94128209; PubMed=8297476;

Weller P.A., Dickson M.C., Huskisson N.S., Dauncey M.J., Buttery P.J.,

Gilmour R.S.;

"The porcine insulin-like growth factor-I gene: characterization and

expression of alternate transcription sites.";

J. Mol. Endocrinol. 11:201-211(1993).

-: FUNCTION: The insulin-like growth factors, isolated from plasma,

are structurally and functionally related to insulin but have a

much higher growth-promoting activity.

-: SUBCELLULAR LOCATION: Secreted.

-: SUBCELLULAR LOCATION: Delangs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=89996956; PubMed=1211153; Tavakkol A., Simmen R.C.M.; Tavakkol A., Simmen F.A., Simmen R.C.M.; Toyrchie insulin-like growth factor-I (pIGF-I): complementary deoxyribonucleic acid cloning and uterine expression of messenger ribonucleic acid encoding evolutionarily conserved IGF-I peptides."; Mol. Endocrinol. 2:674-681(1988).
                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=9022182; PubMed=2326169;
Meller M., Erem G.;
"Nucleotide sequence of porcine insulin-like growth factor. 1:5'
untranslated region, exons 1 and 2 and mRNA.";
                                                                                                                                                                                                              01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
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EMBL; X52388; CAA36527.1; --
EMBL, M3177; AAA31043.1; ALT.
EMBL; M3177; AAA31043.1; ALT.
EMBL; X17638; CAA35632.1; --
FIRS, S12855; S12835.
HSSP, P01343; IGP1.
FIRSPENDING PROOD ABSEST TO STORE TO ST
                                                                                                                                                                       153 AA
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                                                                                                                                                                         STANDARD;
                                                           86 CAPLKPAKSA 95
                                                                                                                                                                                                                                                                                                                          scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9823;
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MEDLINE=86168194, PubMed=2937782;
Rotwein F., Pollock K.M., Didier D.K., Krivi G.G.;
Rotyein P., Pollock K.M., Didier D.K., Krivi G.G.;
"Organization and sequence of the human insulin-like growth gene. Alternative RNA processing produces two insulin-like growth
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MEDLINE=66108862; PubMed=3002851;
MEDLINE=66108862; PubMed=3002851;
Pager-Holthuizen P., van Schaik F.M.A., Verduijn G.M.,
van Ommen G.J.B., Bouwa B.N., Jansen M., Sussenbach J.S.,
"Organization of the human genes for insulin-like growth factors I
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=66108910; PubMed=2935423;
le Bouc Y., Dreyer D., Jaeger F., Binoux M., Sondermeyer P.;
"Complete characterization of the human IGF-I nucleotide sequence isolated from a newly constructed adult liver CDNA library.";
FEBS Lett. 196:108-112(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGP1 OR IBP1.
Homo sapiens (Human).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-84068210; PubMed=6158902; Jansen M., van Schaik F.M.A., Ricker A.T., Bullock B., Woods D.E., Gabbay K.H., Nussbaum A.L., Sussenbach J.S., van den Brande J.L.; "Sequence of cDNA encoding human insulin-like growth factor I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUL-1986 (Rel. 01, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor IA precursor (IGF-IA) (Somatomedin C)
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Steenbergh P.H., Koonen-Reemst A.M.C.B., Cleutjens C.B.J.M.,
Sussenbach J.S.;
B.
C.
A.
B.
B. PEPTIDE.
96 BY SIMILARITY.
BY SIMILARITY.
A098792DCDAOCD7D CRC64;
C098792DCDAOCD7D CRC64;
C186-40;
C17
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J. Biol. Chem. 261:4828-4832(1986).
                                                                                                                                                                                                                             17010 MW;
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Best Local Similarity 100.
Matches 70; Conservative
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X57025;
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PDB; 1G;
PDB; 1G;
PDB; 1H;
PDB; 1H;
PDB; 1H;
PDB; 1H;
RGenew; 1
MIM; 14;
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   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. the European Bioinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-92316903; PubMed-1319992;
Sato A., Nishimura S., Ohkubo T., Kyogoku Y., Koyama S., Kobayashi M.,
Yasuda T., Kobayashi Y.;
                                                     TISSUE=Brain;
MEDLINE=92186627; PubMed=1372070;
Sandberg Nordqvist A.C., Stahlbom P.A., Lake M., Sara V.R.;
Sandberg Nordqvist A.C., Stahlbom P.A., Lake M., Sara V.R.;
"Characterization of two cDNAs encoding insulin-like growth factor 1
(IGF-1) in the human fetal brain.";
Brain Res. Mol. Brain Res. 12:275-277(1992).
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Rinderknecht E., Humbel R.E.;
"The amino acid sequence of human insulin-like growth factor I and
its structural homology with proinsulin.";
J. Biol. Chem. 253:2769-2776(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        "IH-NMR assignment and secondary structure of human insulin-like growth factor-I (IGP-I) in solution."; J. Biochem. 111:529-536(1992).
"Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.";
                                                                                                                                 MEDLINE-84295593; PubMed-6382022;
Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
Insulin-like growth factor II precursor gene organization in
relation to insulin gene family.";
                                                                                                                                                                                                                                                                                                                                                             Cooke R.M., Harvey T.S., Campbell I.D., "Solution structure of human insulin-like growth factor 1: a magnetic resonance and restrained molecular dynamics study."; Biochemistry 30:5484-5491(1991).
                                                                                                                                                                                                                                                                    3D-STRUCTURE MODELING.
MEDLINE=83210259; PubMed=6189745;
Blundell T.L., Bedarkar S., Humbel R.E.;
"Tertiary structures, receptor binding, and antigenicity of insulinitke growth factors.";
Fed. Proc. 42:2592-2597(1983).
                        ochem. Biophys. Res. Commun. 175:507-514(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=P05019-1; Sequence=External; SIMILARITY: Belongs to the insulin family.
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                                           SEQUENCE FROM N.A.
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R GO; GO:0005180; F:peptide hormone; TAS.
R GO; GO:0005280; F:ell motility; TAS.
R GO; GO:0005281; F:ell motility; TAS.
R GO; GO:0009441; P:glycolate metabolism; TAS.
R GO; GO:0007517; P:muscle development; TAS.
R GO; GO:0007265; P:RAS protein signal transduction; TAS.
R GO; GO:0007265; P:RAS protein signal transduction; TAS.
R GO; GO:0007165; P:signal transduction; TAS.
R GO; GO:0007265; P:RAS protein signal transduction; TAS.
R GO; GO:0007265; P:RAS protein signal transduction; TAS.
R GO; GO:000116; P:RAS protein signal transduction; TAS.
R FO:0001501; P:RAS-leal development; TAS.
R FO:0001501; P:RAS-leal development; TAS.
R FRINTS; PROCA75; INSULINE.
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PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; 3D-structure;
Alternative splicing; Signal.
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                                                     CAA24298.1; -..
AAA527250.1; ALT_SEQ.
AAA52787.1; -..
CAA27152.1; -..
CAA27153.1; -..
CAA27153.1; -..
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nes 70; Conservative
                      AAA52538.1;
CAA24998.1;
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1H02; 25-JUL-02.
1H59; 16-MAY-02.
1IMX; 03-OCT-01.
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have a
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MEDLINE-88268820; PubMed=3390164;
MEDLINE-88268820; PubMed=3390164;
MEDLINE-88268820; PubMed=3390164;
Faracis G.L., Upton F.M., Ballard F.J., McNeil K.A., Wallace J.C.;
"Insulin-like growth factors 1 and 2 in bowine colostrum. Sequences "Insulin-like growth factors 1 and 2 in bowine colostrum truncated and biological activities compared with those of a potent truncated
                                                                                                                                                                                                                                                                                                                                    Bos taurus (Bovine).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=95172127; PubMed=7867698; Schmidt A., Einspanier R., Amselgruber W., Sinowatz F., Schams D.; Schmidt A., Einspanier R., Amselgruber W., Sinowatz F., Schams D.; Expression of insulin-like growth factor 1 (IGF-1) in the bovine oviduct during the ostrous cycle."; Exp. Clin. Endocrinol. 102:364-369(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=8608881; PubMed=3941093; Honegger A., Humbel R.E.; Honegger A., Humbel R.E.; Insulin-like growth factors I and II in fetal and adult bovine serum. Purification, primary structures, and immunological cross-reactivities.; J. Biol. Chem. 261:569-575(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fotsis T., Murphy C., Gannon F.; "Nuclective growth factor "Nucleotide sequence of the bovine insulin-like growth factor (IGP-1) and its IGP-1A precursor."; Nucleic Acids Res. 18:676-676(1990).
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-!- FUNCTION: The insulin-like growth factors, isolated from are structurally and functionally related to insulin but much higher growth-promoting activity.

-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                      01-APR-1988 (Rel. 07, Created)
01-NOV-1999 (Rel. 20, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
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PIRJ; S76122; AAD14209.1; -.
PIRJ; S12672; TGBO1.
HSSP, P01343; 1GF1.
InterPro; IPR0048125; Ins/IGF/relax.
Pfan; PP00049; Insulin; 1.
PRINTS; PR0027; INSULINB.
SMART; SM00768; INGTINI, 1.
PROSITE; PS00262; INGTIN; 1.
Insulin family; Growth factor; Plasma; Signal.
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SEQUENCE OF 2-154 FROM N.A.
MEDLINE=90175014; PubMed=2308958;
Gannon F.;
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SEOUENCE OF 50-119 FROM N.A.
                                                                                                                                                                               STANDARD;
                                               CAPLKPAKSA 118
       61 CAPLKPAKSA 70
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MEDUINE-86168194; PubMed=2937782;
ROTHERD P., Pollock K.M., Didder D.K., Krivi G.G.;
ROTGANIZATION and sequence of the human insulin-like growth factor gene. Alternative RNA processing produces two insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE=86108862; PubMed=3002851;
de Pagter-Holthuizen P., van Schaik F.M.A., Verduijn G.M.,
de Pagter-Holthuizen P., van Schaik F.M.A., Sussenbach J.S.;
"Organization of the human genes for insulin-like growth factors I and II.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rotwein P.;
"Two ingulin-like growth factor I messenger RNAs are expressed in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
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13.AUG-1987 (Rel. 05, Last sequence update)
10.CCT-2003 (Rel. 42, Last annotation update)
11sulin-like growth factor IB precursor (IGF-IB) (Somatomedin (IGF) OR IBP1.
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDINE=64295593; PubMed=6382022;
Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
"Insulin-like growth factor II precursor gene organization in
relation to insulin gene family.";
                                                                                                                                                                                                                                     100.0%; Score 385; DB 1; Length 154; 100.0%; Pred. No. 1.8e-40; cive 0; Mismatches 0; Indels C
               INSULIN-LIKE GROWTH PACTOR I.
B.
C.
A.
D.
B. PEPTIDE.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                   64201B6AF3140999 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              factor I precursor peptides.";
J. Biol. Chem. 261:4828-4832(1986).
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MEDLINE=86094355; PubMed=3455760;
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MEDLINE=78130171; PubMed=632300;
Rinderknecht E., Humbel R.E.;
                                                                                                                                                                                                     17066 MW;
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Best Local Similarity lvv..
To, Conservative
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1119
1119
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1010
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P05019;
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the Buropean Bioinformatics institute. There are no restrictions on its use by non-profit institutions and only a sits content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=89207850; PubMed=3242681; Raschdorf F., Dahinden R., Maerki W., Richter W.J., Merryweather J.P.; Location of disulphide bonds in human insulin-like growth factors (IGFs) synthesized by recombinant DNA technology."; Biomed. Environ. Mass Spectrom. 16:3-8(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT ASP-187.
MEDINE=99180093, PubMed=10391209,
MEDINE=99180003, PubMed=10391209,
Cargill M. Altshuler D., Ireland J., Sklar P., Ardlie K., Patil N.,
Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., Nemesh J., Ziaugra L.,
Friedland L., Rolfe A., Warrington J., Lipshutz R., Daley G.Q.,
"Lander E.S.; Daley G.Q.,
"Characterization of single-nucleotide polymorphisms in coding regions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sato A., Nishimura S., Ohkubo T., Kyogoku Y., Koyama S., Kobayashi M., Yasuda T., Kobayashi Y., Tasuda T., Kobayashi Y., International and secondary structure of human insulin-like growth factor-I (IGF-I) in solution.";
                                                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR.
MEDLINE=91242464; PubMed=2036417;
Cooke R.M., Harvey T.S., Campbell I.D.;
Solution structure of human insulin-like growth factor 1: a nuclear magnetic resonance and restrained molecular dynamics study.";
Biochemistry 30:5484-5491(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cargill M., Altshuler D., Ireland J., Sklar P., Ardlie K., Patil N., Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., Nemesh J., Ziaugra L., Friedland L., Rolfe A., Warrington J., Lipshutz R., Daley G.Q., Lander E.S.;
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have a
"The amino acid sequence of human insulin-like growth factor I and its structural homology with proinsulin.";
J. Biol. Chem. 253:2769-2776(1978).
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-I- SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                3D-STRUCTURE MODELING.
MEDLINE-83210259; PubMed=6189745;
Blundell T.L., Bedarkar S., Humbel R.E.;
"Tertiary structures, receptor binding, and antigenicity of insulinike growth factors.";
Fed. Proc. 42:2592-2597(1983).
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SIMILARITY: Belongs to the insulin family.
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STRUCTURE BY NWR.
MEDLINE=92316903; PubMed=1319992;
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EMBL, M12659; AAA52537.1; JOINED.
EMBL, M14153; AAA52537.1; JOINED.
EMBL, M14154; AAA52537.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human genes.";
:. Genet. 22:231-238(1999).
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                                                                                                                                                                                                                                              R GO; GO:0005189; F:insulin-like growth factor receptor binding; TAS.

GO; GO:0005180; F:peptide hormone; TAS.

GO; GO:0005280; P:ecal motility; TAS.

GO; GO:0005280; P:metabolism; TAS.

GO; GO:000541; P:glycolate metabolism; TAS.

R GO; GO:000541; P:positive regulation of cell proliferation; TAS.

R GO; GO:0005284; P:positive regulation of cell proliferation; TAS.

R GO; GO:0005284; P:positive regulation of cell proliferation; TAS.

R GO; GO:0007265; P:RAS protein signal transduction; TAS.

R GO; GO:0001501; P:kelecal development; TAS.

R FRINTS; PRO0075; INSULIN; 1.

R FRINTS; PRO0079; INSULIN; 1.

R PRINTS; RR00079; INSULIN; 1.

R RART; SN00079; INSULIN; 
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/FTId=VAR_013945.
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(Rel. 40, Last sequence update)
(Rel. 42, Last annotation update)
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ALT_SEQ.
REMEL, X03422, CAA27153
PTR, A01611, IGHULB.
R PDB, IGF1, 15-OCT-94.
R PDB, 3GF1, 15-OCT-94.
PDB, 3GF1, 15-APR-93.
PDB, 1BGT, 18-APR-99.
Genew, HGNC:9464, IGF1.
MIM, 265850.
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es 70; Conserv
    M11568; X03563;
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Q28933;
16-OCT-2001
16-OCT-2001
10-OCT-2003
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VARIANT
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IGF1_SUNMU
ID IGF1_ST
AC Q28933;
DT 16-OCT-
DT 10-OCT-
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Local Similarity
es 69; Conserv
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                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropaen Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                               "Parrial sequence of a IGF-I cDNA in the musk shrew, Suncus murinus.";
Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
-!- SUBCELIULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                               Suncus murinus (House shrew) (Musk shrew).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia; Butheria; Insectivora, Soricidae, Crocidurinae, Suncus.
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095222; 018846;
01-NOV-1997 (Rel. 35, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin).
IGFI OR IGF-1.
Oryctolagus cuniculus (Rabbit).
nsulin-like growth factor I precursor (IGF-I) (Somatomedin)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 382; DB 1; Length 81;
Pred. No. 2.2e-40;
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SIMILARITY.
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HSSP; P01343; 1GF1.
InterPro; 1PR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00276; INSULINB.
PRINTS; PR00276; INSULINB.
PROSTIE; PS00262; INSULINB.
Insulin family; Growth factor; Plasma.
NON TER 4 BY SIMILARI;
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E PEPTIDE.
BY SIMILAR.
BY SIMILAR.
BY SIMILAR.
                                                                                   SEQUENCE FROM N.A.
STRAIN=BAN, and NAG; TISSUE=Liver;
Ishikawa A.;
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                                                              NCBI_TaxID=9378
              (Fragment).
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INSULIN-LIKE GROWTH FACTOR I.
B PEPTIDE.
C.
A.
D.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
FYOPPETINCOMESORRKGSTPEEHK -> EVHLKNTSRGSAGNKNYRM (in isoform IGF-IA).
/FIId-VSP_002705.
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EMBL, AF022961; AAB80950.1; -.
HSSP, P01443; IGF1.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PR00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; INGF. 1.
PROSITE; PS00262; INGF. 1.
Insulin family; Growth factor; Plasma; Signal; Alternative splicing..
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                         [2] EQUINCE FROM N.A. (ISOFORM IGF-IB).
SEQUENCE FROM N.A. (ISOFORM IGF-IB).
STRAIN-ZIKA; TISSUB-Liver;
Flekna G., Brem G., Mueller M.;
Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
-I-FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.2%; Score 382; DB 1; Length 143; 98.6%; Pred. No. 4e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                            Flekra G., Brem G., Mueller M.;
Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           819AF577800A1B1A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=IGF-IA;
IsoId=095222-2; Sequence=VSP 002705;
-- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                           much higher growth-promoting activity.
-!- SUBCELLUTAR LOCATION: Secreted.
-!- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId=095222-1; Sequence=Displayed;
                                                                                                                       SEQUENCE FROM N.A. (ISOFORM IGF-IA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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110 CAPLKPTKSA 119

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                                                                                                                                                                                                                                                                                                                           [1]
SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
STRAIN-Shiba; TISSUE-Liver;
STRAIN-Shiba; PubMed=7772848;
Mikawa S., Yoshikawa G.-I., Yamano Y., Sakai H., Komano T., Hosoi Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       growth factor I (IGF-I) mRNAB.";
Blosci. Biotechnol. Blochem. 59:759-761(1995).
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
-!- SUBCELDUAR LOCATION: Expressed in all tissues examined: brain, lung, liver, spleen, uterus, ovary, testis, heart and skeletal
                                                                                                                                                                        Capra hircus (Goat).
Sukaryota: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Caprinae; Capra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Tissue and development-specific expression of goat insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                      01-OCT-1996 (Rel. 34, Created)
LoCT-2001 (Rel. 40, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.0%; Score 381; DB 1; Length 154; 98.6%; Pred. No. 5.8e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INSULIN-LIKE GROWTH FACTOR I. B.
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EMBL, D26119, BAB7524.1; ALT SEQ.
EMBL, D26119, BAB77524.1; ALT SEQ.
EMBL, D261119, BAB77524.1; AUNED.
EMBL, D261119, BAB77524.1; JOINED.
PIRL, JC2483, JC2483.
HSSP, P01343; JGF1.
InterPro; JRR004825; Ins/IGF/relax.
Pfan, PF0049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM0078; INGLINB.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY.
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                                                                                                                                                                                                                                                                                           NCBI_TaxID=9925;
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Matches 6
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MEDLINE=8932315; PubMed=2752053;
MEDLINE=8932315; PubMed=2752053;
Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
Binchint sheep serum.";
Binchin. Bipphys. Acta 997:27-35 (1989).
-i- FUNCTION: The insulin-like growth factors, isolated from plasma,
are structurally and functionally related to insulin but have a
much higher growth-promoting activity.
-i- SUBCELIULAR LOGATION: Secreted.
-i- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                             TISSUB-Liver;
MEDLINE-90126234; PubMed=2575490;
MEDLINE-90126234; PubMed=2575490;
MEDLINE-90126234; PubMed=2575490;
MEDLINE-90126234; PubMed=2575490;
"Cloning of ovine insulin-like growth factor-I cDNAs: heterogeneity in the mRNA population.";
DNA 8:649-657(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 55-135 FROM N.A.
STAIN=COOPWOOTH, TISSUB-LIVE;
MEDLINE=93250051; PUDMG=8485157;
Demmer J., Hill D.F., Petersen G.B.;
Characterization of two sheep insulin-like growth factor II cDNAs with different 5'-untranslated regions.";
Biochim. Biophys. Acta 1173:79-80(1993).
                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutharia; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDINE-89136887; PubMed-2537174;
Francis G.L., McNeil K.A., Wallace J.C., Ballard F.J., Owens P.C.;
"Sheep insulin-like growth factors I and II: sequences, activities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIANE-9321682, PubMed-8466647;
Ohlsen S.M., Dean D.M., Wong E.A.;
Characterization of multiple transcription initiation sites of ovine insulin-like growth factor-I gene and expression profiles three alternatively spliced transcripts.";
DNA Cell Biol. 12:243-251(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=91197361, PubMed=2015053,
Dickson M.C., Saunders J.C., Gilmour R.S.;
"The ovine insulin-like growth factor-I gene: characterization,
expression and identification of a putative promoter.",
J. Mol. Endocrinol. 6:17-31(1991).
                                   01-JUL-1989 (Rel. 11, Created)
10-JUL-1989 (Rel. 17, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Event=Alternative splicing; Named isoforms=3;
154 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=B;
IsoId=P10763-1; Sequence=Displayed;
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endocrinology 124:1173-1183(1989)
 STANDARD;
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                                                                                                                               Ovis aries (Sheep)
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                       NCBI_TaxID=9940;
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CAPLKPAKSA 70

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(IGF-IA) (Somatomedin)

153 AA.

PRT;

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ul-FEB-1991 (Rel. 17, Last sequence update)
10-0CT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor IA precursor (IGF-1
IGF1 OR IGF-1.
                                                           01-AUG-1988 (Rel. 08, Created)
01-FEB-1991 (Rel. 17, Last sequ
10-OCT-2003 (Rel. 42, Last anno
                    STANDARD;
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DR PERM; PR004825; Ins/IGF/relax.

DR PRINTS; PR0049; Insulin; 1.

DR PROSTIE; PR00277; INSULINB.

DR PROSTIE; PS00262; INSULINB.

DR PROSTIE; PS00262; INSULINB.

FT SIGNAL

FT CHAIN 50 19 INSULIN-LIKE GROWTH FACTOR I.

FT DOMAIN 79 90 C.

FT DOMAIN 112 119 D.

T DOMAIN 112 119 D.

T POMAIN 112 119 D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isoform C).
/FIId=VSP 002706.
Missing (in isoform A).
/FIId=VSP 002707.
/FIId=VSP 002707.
/FI = VSP 002707.
/FI = VSP 002707.
                                                ISOId=P10763-3; Sequence=VSP_002706;
SIMILARITY: Belongs to the insulin family.
      IsoId=P10763-2; Sequence=VSP_002707;
                                                                                                                                                                                                                                                                            EMBL; M30653; AAA80532.1; --
EMBL; M30653; AAA80533.1; --
EMBL; M31744; AAA80535.1; --
EMBL; M31745; AAA31545.1; --
EMBL; M31735; AAA31545.1; --
EMBL; M31735; AAA31545.1; --
EMBL; K69472; CAA49230.1; --
EMBL; K69474; CAA49230.1; --
EMBL; K69475; CAA49230.1; JOINED.
EMBL; K69474; CAA49230.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69475; CAA49231.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69474; CAA49231.1; JOINED.
EMBL; K69474; CAA49232.1; JOINED.
EMBL; K69476; CAA49232.1; JOINED.
EMBL; K69477; CAA49232.1; JOINED.
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154 AA; 17012 MW;
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98.6%;
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69; Conservative
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TISSUE-Testis;
MEDLINE-88003970; PubMed=3652906;
Casella S.J., Smith E.P., van Wyk J.J., Joseph D.R., Hynes M.A.,
Hyyt E.C., Lund P.K.;
"Isolation of rat testis cDNAs encoding an insulin-like growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 46-153 PROM N.A.
MEDLINE=87246437; PubMed=359538;
Murphy L.J., Bell G.I., Duckworth M.L., Friesen H.G.;
Marphy L.J., elal G.I., Duckworth, and regulation of a rat
"Identification, characterization, and regulation of a rat
complementary deoxyribonucleic acid which encodes insulin-like growth
Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE—89174609; PubMed=2538424;

MEDLINE—89174609; PubMed=2538424;

Tamura K., Kobayashi M., Ishii Y., Tamura T., Hashimoto K.,

Tamura K., Niwa M., Zapf J.;

"Primary structure of rat insulin-like growth factor-I and its

biological activities.;

J. Biol. Chem. 264:5516-5621(1989).

-: FUNCTION: The insulin-like growth factors, isolated from plasma,

are structurally and functionally related to insulin but have a

much higher growth-promoting activity.

-: SUBCELLULAR LOCATION: Secreted.

-: ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDILINE-89127559; PubMed=3221878;

MEDILINE-89127559; PubMed=3221878;

ROBERTS C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;

Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;

Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing.";

Mol. Endocrinol. 2:1115-1126(1988).
                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE=87222423; PubMed=3034909;
Shimatsu A., Rotwein P.;
Shimats evolution of the insulin-like growth factors. Organization,
sequence, and expression of the rat insulin-like growth factor I
gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kato H., Okoshi A., Miura Y., Noguchi T., Ato H., Okoshi A., Miura Y., Noguchi T., Insulin-like growth factor-I mRNA.", Agric. Blol. Chem. 54:1599-1601(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Event=Alternative splicing; Named isoforms=2;
Name=IGF-IA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IsoId=P08024-1; Sequence=External;
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IsoId=P08025-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biol. Chem. 262:7894-7900(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=91103966; PubMed=1368571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Endocrinology 121:684-691(1987)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       I precursor.";
DNA 6:325-330(1987).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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50 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 109

110 CAPLKAAKSA 119

RESULT 12

61 CAPLKPAKSA 70

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49 GPETLCGAELVDALQEVCGPRGFYENKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus
                                                                                                                                                                                                                                           Interpro; IPRO04825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRYMYS; PR00277; INSULINB.
SWART; SM00078; ILGF; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE=81222423; PubMed=3034909;
Shimates A., Rotwein P.; Insulin-like growth factors. Organization, sequence, and expression of the rat insulin-like growth factor I gene.";
J. Biol. Chem. 262:7894-7900(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1991 (Rel. 17, Last sequence update)
Incorr-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor IB precursor (IGF-IB) (Somatomedin)
IGF1 OR IGF-1.
                                                                                                                                                                                                                                                                                                                                                     INSULIN-LIKE GROWTH FACTOR IA.
B.
C.
A.
D.
E PEPTIDE.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
ARD. -> VRC (IN REF. 4).
W, 966F3COPA4EB3DE7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 368, DB 1, Length 153;
Pred. No. 2.3e-38;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 AA.
                                                                                                                                 EMBL, MISG47, AAA41215.1; JOINED.
EMBL, MISG49; AAA41215.1; JOINED.
EMBL, MISG49; AAA41215.1; JOINED.
EMBL, MI7714; AAA41227.1; ---
EMBL, MI7335; AAA4136.1; ALT_INIT.
PIR; B27804; B27804.
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01-FEB-1991 (Rel. 17, Last seq
10-OCT-2003 (Rel. 42, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17079 MW;
                                                                                                           EMBL; X06043; CAA29436.1; -. EMBL; M15651; AAA41215.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
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77
89
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153 AA;
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CONFLICT
SEQUENCE
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Best Local S
Matches 67
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P08024;
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                                                                                                                                                                                                                                                   N (4)
SEQUENCE OF 49-118.
N MEDLINE=89174609; PubMed=2538424;
M MEDLINE=89174609; PubMed=2538424;
A Tamura K., Kobayashi M., Zapf J.;
A Nakamura S., Niwa M., Zapf J.;
T piological activities of rat insulin-like growth factor-I and its biological activities ";
I J. Biol. Chem. 264:5616-5621 (1989).
C -! FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
C -! SUBCELLULAR LOCATION: Secreted.
C -! ALTERNATIVE PRODUCTS:
                                                                                                    [3]
MEDINCE FROM N.A.
MEDINE=89127259; PubMed=3221878;
Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;
Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;
"Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
                MEDLINE=88015572; PubMed=3658684; Shimatsu A., Rotwein P.; Shimatsu A., Rotwein P.; Shimatsu A., Rotwein P.; Squin-like growth factor I mRNAs differing "Sequence of two rat insulin-like growth factor I mRNAs differing within the S' untramalated region."; Nucleic Acids Res. 15:7196-7196(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 181;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 368; DB 1;
Pred. No. 2.8e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IsoId=P08025-1; Sequence=External;
-!- SIMILARITY: Belongs to the insulin family.
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C.
A.
D.
E.
PEPTIDE.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IsoId=P08024-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL, M15650, AAA41214.1; --
EMBL, M15647, AAA41214.1; JOINED.
EMBL, M15648; AAA41214.1; JOINED.
EMBL, M15649; AAA41214.1; JOINED.
EMBL, X05049; AAA29480.1; ALT_SEQ.
EMBL, M1540; AAA29480.1; ALT_SEQ.
EMBL, M1540; AAA2948
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Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                        acid splicing.";
Mol. Endocrinol. 2:1115-1126(1988)
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SM00078; IIGF; 1.
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Best Local Similarity
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P01343; 1GF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=IGF-IA;
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SMART; SN
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69
127 AA;
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                                   108
                  09
                                   49 GPETICGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                  1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
Gaps
                                                                                                                                                                                                                                     HSSF, P01343; IGP1.

MGD; MG1:96421, IGP1.

MGD; MG1:96421, IGP1.

GO; GO:0001399; P:neurogenesis; IMP.

InterPro: IPR004025; Ins/IGF/relax.

Pfam; PF00049; InsUlin: 1.

PRINTS; PR00277; INSULINB.

SMART; SM00078; INST.

PROSTE; PS0026262; INSULINS.

Insulin: family; Growth factor; Plasma; Alternative splicing; Signal.
                                                                                                                                                                                          Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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0
                                                                                                                                   13.AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor IA precursor (IGF-IA) (Somatomedin)
3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INSULIN-LIKE GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                        Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: Belongs to the insulin family.
                                                                                                                  127 AA.
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Y SIMILARITY.
Y SIMILARITY.
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                 Name=IGF-IA;
IsoId=P05017-1; Sequence=Displayed;
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                                                                                                                   PRT;
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 67; Conservative
                                                                                                                   STANDARD;
                                                                      CAPLKPTKSA 118
                                                      CAPLKPAKSA 70
                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                  IGFA MOUSE
P05017;
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  Matches
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SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAINF-FYB/N; ITSSUB-Liver;

MEDLINE-22388.25; PubMede=12477932;

Strainberg R.L., Fehigold E.A., Grouse L.H., Derge J.G.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.M., Schuler G.D.,

Altschul S.F., Jordan H., Morent A.A., Rubin G.M., Henbe F.,

And Sares M.B., Danaldo M.F., Casavant T.L., Scheetz T.E.,

Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abzamson R.D., Mullahy S.J.,

Brownstein M.J., Woffwan P.J., McKernan K.J., Malek J.A., Glabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Nilalon D.K., Wazny D.M., Sodergren E.J., Lu X., Glabbs R.A.,

Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Blakelley R.W., Touchman J.W., Gchmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

A Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Chemen And mouse cDNA sequences.",

Thuman and mouse cDNA sequences.",

Thurstown M.S. Sock and T.S. Sock and T.S. Sock and T.S. Sock a
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Sequences of liver cDRAs encoding two different mouse insulin-like
growth factor I precureors ";
Nucleic Acids Res. 14:7873-7882(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Makaryota Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13.AUG-1987 (Rel. 05, Created)
13.AUG-1987 (Rel. 05, Last sequence update)
15.AUG-1987 (Rel. 43, Last annotation update)
INSMAR-2004 (Rel. 43, Last annotation update)
INSMIN-1in-like growth factor IB precursor (IGF-IB) (Somatomedin)
IGF1 OR IGF-1.
                                                                                                                                                   Length 127;
                                                                                                                                                         ch 94.8%; Score 365; DB 1; Length 12
1 Similarity 94.3%; Pred. No. 4.4e-38;
66; Conservative 1; Mismatches 3; Indels
74 BY SIMILARITY.
14120 MW; 1054B8CAC72DC2D7 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IsoId=P05018-1; Sequence=Displayed;
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Best Local Similarity
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GO:GO:0010001; P:glial cell differentiation; IMP.
GO:GO:0010001; P:glial cell differentiation; IMP.
GO:GO:0007399; P:neurogenesis; IMP.
InterPro; IPR0044825; InsVIGF/relax.
PFam; PF00049; Insulin; 1.
PRINTS; PR00077; INSULINB.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kida S., Twaki M., Nakamura A., Miura Y., Takenaka A., Takahashi S., Noguchi T.,
"Insulin-like growth factor-I messenger RNA content in the oviduct o Japanese quail (Coturnix octurnix japonica): changes during growth and development or after estrogen administration.";

Comp. Biochem. Physiol. 109C:191-204(1994)

-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
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Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 94.8%; Score 365; DB 1; Length 133; I Similarity 94.3%; Pred. No. 4.7e-38; 66; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                        INSULIN-LIKE GROWTH FACTOR IB
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MEDLINE=95187621; PubMed=7881819;
                                                                                                                                      EMBL; X04482; CAA28170.1; -.
EMBL; BC012409; AAH12409.1; -.
HSSP; P01343; 1GF1.
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01-0CT-1996 (Rel. 34, Last seq
10-0CT-2003 (Rel. 42, Last anno
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NCBI_TaxID=93934;
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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SEQUENCE OF 1-21 FROM N.A.
SEQUENCE 91236750; PubMed=2033062;
Rotwein P., Kajimoto Y.;
"Structure of the chicken insulin-like growth factor I gene reveals conserved promoter elements.";
J. Biol. Chem. 266:9724-9731(1991).
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1-NOV-1990 (Rel. 16, Last sequence update)
10-OCT-2003 (Rel. 142, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
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INSULIN-LIKE GROWTH FACTOR I.
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SIMILARITY: Belongs to the insulin family.
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Pram; PP0049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMRRT; SM0078; I1GF; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma.
NON TER <1 19
                                                                                                                                                                                                                                                                            EMBL; S75247; -; NOT ANNOTATED CDS. HSSP; P01343; 1GF1.
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MEDLINE=90190648; PubMed=2628728;
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  MEDLINE=90231335; PubMed=2330002;
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SEQUENCE OF 49-118.
MEDLINE=91106695, PubMed=2272467;
Ballard F.J., Johnson R.J., Owens P.C., Francis G.L., Upton F.M.,
McMurtry J.P., Wallace J.C.,
"Chicken insulin-like growth factor-I: amino acid sequence,
"Chicken insulin-like growth levels between strains and during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia; Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                    growth.";
Gen. Comp. Endocrinol. 79:459-468(1990).
-!- FUNCTION: The insulin-like growth factors, isolated from
- are structurally and functionally related to insulin but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71071/990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
11nsulin-like growth factor I precursor (IGF-I) (Somatomedin).
Xenopus laevis (African clawed frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 344; DB 1; Length 153;
Pred. No. 2.1e-35;
3; Mismatches 5; Indels
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Y SIMILARITY.
Y SIMILARITY.
AAE13FDED13EE2F8 CRC64;
                                                                                                                                                                                                                                                 much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSERY: TRROMAGES, INS/IGF/relax.
Pfam; PF00049; Insulin; 1.
SMART; SM00078; INSULINB.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Signal.
STGNAL.
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EMBL, M74176; AAA48829.1; -.
PIR, A41399; A41399.
HSSP, PO1343; 1GF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 89.4%;
Local Similarity 88.6%;
Les 62; Conservative
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Actinopterygii, Neopterygii, Teleostei, Ostariophysi, Cypriniformes,
Cyprinidae, Cyprinus.
NCBI_TaxID=7962;
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Hashimoto H., Mikawa S., Takayama E., Yokoyama Y., Toyohara
Sakaguchi M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 153;
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                                                                                                                                                                                                                                           EMBL, M29857; AAA70330.1; -.
PIR; A36079; A36079.
HSSP. P01343; 1GF1.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; PR00207; INSULINB.
INSULINB; PR00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
INSULIN family; Growth factor; Plasma; Signal.
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Pred. No. 3.6e-34;
5; Mismatches 6;
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01-NOV-1997 (Rel. 35, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
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P17085;
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                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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POTENTIAL.
INSULIN-LIKE GROWTH FACTOR I, ADULT FORM.
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"Molecular cloning and growth hormone-regulated gene expression of carp insulin-like growth factor-I.";
Biochem. Mol. Biol. Int. 41:877-886(1997).
--!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a
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Actinopterrygii, Neopterrygii, Teleostei, Ostariophysi, Cypriniformes,
Cyprinidae, Cyprinus.
Chill TaxID=7962;
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Biochem. Mol. Biol. Int. 41:877-886(1997).
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Archinoco H., Mikawa S., Takayama E., Yokoyama Y., Toyohara H.,
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01-NOV-1997 (Rel. 35, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I, juvenile form precursor.
Cyprinus carpio (Common carp).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B949960563391AF8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 326; DB 1;
Pred. No. 3.7e-33;
                                                                                                                                                much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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HSSP; P01343; 1GF1.
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IGFB CYPCA
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FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

SUBCELLUTAR LOCATION: Secreted.

SIMILARITY: Belongs to the insulin family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 45-114.
MEDLINE=94062830; PubMed=8243465;
Moriyama S., Duguay S.J., Conlon J.M., Duan C., Dickhoff W.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.7%; Score 326; DB 1; Length 161;
82.6%; Pred. No. 3.7e-33;
ive 6; Mismatches 6; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plasma; Signal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMEL, D83272; BAA11879.1; -. HSSP; P01343; 1GFL.
INCEPTO; IPRO04925; Ins/IGF/relax.
Pfam; PP00049; Insulin; 1.
RINTS; PR00277; INSULINB.
SMART; SM00078; IGF, 1.
PROSITE; PS00262; INSULIN; 1.
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57; Conservative
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SOT THE TEST TEST TO THE SOURCE COURT TO THE S
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                         "Recombinant coho salmon insulin-like growth factor I. Expression in Escherichia coli, purification and characterization.";

Bur. J. Biochem. 218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-218:205-
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01-FBE-1995 (Rel. 31, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I) (Somatomedin).
Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
Bukaryota, Metzaca, Chordata, Craniata, Vertebrata, Euteleostomi, Actinopterygii, Neopterygii, Teleostei; Euteleostei, Protacanthopterygii, Salmoniformes; Salmonidae; Oncorhynchus.
[1]
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Shamblott M.J., Chen T.T.;
"Identification of a second insulin-like growth factor in a fish
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Pred. No. 4e-32;
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HSSP; P01343; 1GF1.
Pfanc.Pro143; 1GF1.
Pfanc.Pro049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; INSULINB.
INSULINB.
INSULINB.
INSULING INSULINB.
Insulin; Growth factor; Plasma; Signal.
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E PEPTIDE.
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115 1
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IGF1_ONCMY
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Proc. Natl. Acad. Sci. U.S.A. 89:8913-8917(1992).
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
-!- SUBCELLUTAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 89:8913-8917(1992).
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 42, Last sequence update)
10-OCT-2003 (Rel. 42, Last sequence update)
110-OCT-2003 (Rel. 42, Last amotation update)
110-OCT-2004 (Rel. 42, Last amotation update)
00-COT-2005 (Rel. 42, Last amotation update)
01-FEB-1995 (Rel. 42, Last amotatio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDILINE-93028377; PubMed=1409585;
Shamblott M.J., Chen T.T.;
"Identification of a second insulin-like growth factor in a fish
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
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INSULIN-LIKE GROWTH FACTOR I.

85 C.

106 A.

14 D.

8 PEPTIDE.

8 SIMITARITY.

BY SIMITARITY.

14 BY SIMITARITY.

15 BY SIMITARITY.

16 BY SIMITARITY.

17 BY SIMITARITY.

18 SIMITARITY.

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7; Mismatches 7; Indels
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SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasma; Signal.
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HSSP, PO1343; 1GT.
InterPro; IPRO04825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
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STANDARD;
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ID IGF2 CA
AC Q08279;
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                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its word in non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-i- FUNCTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells. IGF-II is influenced by placental lactogen and may play a role in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Mammalia, Eutheria, Carnivora, Fissipedia, Mustelidae, Mustelinae,
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1-NOV-1995 (Rel. 32, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor II precursor (IGF-II) (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INSULIN-LIKE GROWTH FACTOR II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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Pred. No. 1.9e-23;
  much higher growth-promoting activity.
-!- SUBCELLUTAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                  insulin family; Growth factor; Plasma; Signal
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SIMILARITY.
SIMILARITY.
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PIR; B46244; B46244.
HSSP; P01344, 1GF2.
InterPro; IPR004835; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
SMART; SM00077; INSULINB.
SMART; SM0078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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l Similarity 73.1%;
49; Conservative
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Matches 49; Conser
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DOMAIN
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liver: expression and developmental regulation.";
Mol. Cell. Endocrinol. 89:105-110(1992).
-!- FUNCTION: The insulin-like growth factors possess growth-promoting
activity. In vitro, they are potent mitogens for cultured cells.
IGF-II is influenced by placental lactogen and may play a role in
fetal development.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                          Cavia porcellus (Guinea pig).
Eukaryota, Metazoa; Chordata; Craniata, Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
NCBI_TaxID=10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
10-CCT-2003 (Rel. 42, Last amnotation update)
Insulin-like growth factor II precursor (IGF-II) (Somatomedin A)
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STRAIN=Hartley, TISSUE=Liver;
MEDLINE=92246007; PubMed=1301379;
Levinovitz A., Norstedt G., van den Berg S., Robinson I.C.A.F.
Ekstroem T.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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Pred. No. 1e-20;
3; Mismatches 14;
fetal development.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Joedan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., McOrley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., iu X., Gibbs R.A.,
Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Mniting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Tucchman J.W., Green E.D., Dickson M.C.,
Brakey A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=88065102; PubMed=3683205;
Rall i.B., Scott J., Bell G.I.;
"Human insulin-like growth factor I and II messenger RNA: isolation of complementary DNA and analysis of expression.";
Meth. Enzymol. 146:239-248(1987).
                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=66108862; PubMed=30028851;
MEDLINE=66108862; PubMed=30028851;
Van Schaik F.M.A., Verduijn G.M.,
Van Ommen G.J.B., Bouma B.N., Jansen M., Sussenbach J.S.,
"Organization of the human genes for insulin-like growth factors I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-87317645; PubMed-3476948; Irminger J.C., Rosen K.M., Humbel R.E., Villa-Komaroff L.; Irsuse-specific expression of insulin-like growth factor II mRNAs with distinct 5' untranslated regions."; Proc. Natl. Acad. Sci. U.S.A. 84:6330-6334(1987).
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Sequence of a cDNA clone encoding human preproinsulin-like growth
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MEDLINE=88158110; PubMed=2450353;
Shen S.-J., Dalmon M., Wang C.-Y., Jansen M., Ilan J.;
Isolation of an insulin-like growth factor II cDNA with a unique untranslated region from human placenta.";
Proc. Natl. Acad. Sci. U.S.A. 85:1947-1951(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NNAs encoding precursors of human II (IGF-II) and an IGF-II variant.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-85102019; PubMed=3881277;
Jansen M., van Schaik F.M.A., van Tol H., van den Brande J.L.
Sussenbach J.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jpn. J. Cancer Res. 86:202-207(1995).
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insulin-like growth factor II (
FEBS Lett. 179:243-246(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 1).
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                                                                                                                                                                                                                                                                                                                                                                                                                  FEBS Lett. 195:179-184(1986).
                                                     Nature 310:775-777(1984).
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       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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          SUBCELLULAR LOCATION: Secreted.
DEVELOPMENTAL STAGE: EXPRESSED PREDOMINANTLY IN FETAL TISSUES AND
AT LOWER LEVELS IN ADULT.
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MEDLINE-84295592; PubMed-6382021;
Bell G.I., Merryweather J.P., Sanchez-Pescador R., Stempien M.M.,
Priestley L., Scott J., Rall L.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P01344; P78449; Q14299; Q9UC69; 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 10-CCT-2003 (Rel. 42, Last annotation update) 10-CCT-2013 (Rel. 42, Last annotation update) (Somatomedin A)
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Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
"Insulin-like growth factor II precursor gene organization in relation to insulin gene family.";
Nature 310:777-781(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 223; DB 1; Length 128;
Pred. No. 1.5e-20;
4; Mismatches 11; Indel8
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SIGNAL 1 24 BY SIMILARITY.
CHAIN 25 91 INSULIN-LIKE GROWTH FACTOR II.
DOMAIN 25 52 B.
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                                                                            -!- SIMILARITY: Belongs to the insulin family
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PIR; I57671; I57671.
HSSP; PO1344; IGF2.
INTERPRO; IPRO4825; INS/IGF/relax.
Fram; PF00049; Insulin; I.
PRINTS; PR00277; INSULINB.
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PS00262; INSULIN; 1.
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128 AA;
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Okabe T.;

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MEDLINE=95800243; PubMed=7527339; MEDLINE=95800243; Nohda D., Hatanaka H., Nagata K., Higashihashi N., Terasawa H., Kohda D., Hatanaka H., Nagaki F.; Fujiwara H., Sakano K.-I., Inagaki F.; Solution structure of human insulin-like growth factor II; recognition struct for receptors and binding proteins."; EMBO J. 13:5590-5597(1994).
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Koufos A., Ullrich A.;
                                                                                                        MEDIJEE=89000779; PubMed=3167054; de Pagter-Holthuizen P., van der Kammen R.A., Jansen M., de Pagter-Holthuizen P., van der Kammen R.A., Jansen M., van Schaik P.M.A., Sussenbach J.S.; "Differential expression of the human insulin-like growth factor I gene. Characterization of the IGP-II mRNAs and an mRNA encoding a putative IGP-II-associated protein."; Biochim. Biophys. Acta 950:282-295(1988).
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Hudgins W.R., Hampton B., Burgess W.H., Perdue J.F.;
"The identification of O-glycosylated precursors of insulin-like
growth factor II.";
                                                                                                                                                                                                                                                              SEQUENCE OF 1-161 FROM N.A. (ISOFORM 2).
MEDLINE-88005137; PubMed=3653397;
le BDuc Y., Noguiez P., Sondermeijer P., Dreyer D., Girard F.,
Binoux M.;
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MEDLINE=78191259; PubMed=658418;
MEDLINE=78191259; FubMed R.E.;
Anderknecht E., Humbel R.E.;
"Prinary structure of human insulin-like growth factor II.";
FEBS Lett. 89:283-286(1978).
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Blundell T.L., Bedarkar S., Humbel R.E.;
Terriary structures, receptor binding, and antigenicity of
insulininike growth factors.";
Fed. Proc. 42:2592-2597(1983).
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MEDLINE=89255428; PubMed=2722836;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FII) and an IGF II variant fro
Chromatogr. B 666:203-214(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Biol. Chem. 267:8153-8160(1992)
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MEDLINE=95360205; PubMed=7633596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=88003966; PubMed=3652904;
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                                                                                          SEQUENCE OF 103-180 FROM N.A.
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activity. In vitro, they are potent mitogens for cultured cells. IGF-II is influenced by placental lactogen and may play a role in
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Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=90132351; PubMed=1688912;
Kallincos N.C., Wallace J.C., Francis G.L., Ballard F.J.;
"Chemical and biological characterization of chicken insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57.9%; Score 223; DB 1; Length 180; 68.7%; Pred. No. 2.2e-20; tive 4; Mismatches 11; Indels
                                                                                                                                                     Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                 -!- SIMILARITY: Belongs to the insulin family.
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01-FEB-1994 (Rel. 28, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor II (IGP-II)
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                                                                                                                                                                                                                                          Name=2;
IsoId=P01344-2; Sequence=VSP_002708;
                                                                                                                                                                                                                   IsoId=P01344-1; Sequence=Displayed;
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EMBL; M14116; AAA52535.1; JOINED.
EMBL; M14117; AAA52535.1; JOINED.
EMBL; X03562; CAA27249.1; --
EMBL; X06159; CAA25426.1; --
EMBL; X0610; CAA25426.1; --
EMBL; X06160; CAA25426.1; --
EMBL; X07868; CAA35717.1; --
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                                                             fetal development.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
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MEDLINE=88244560; PubMed=3379351;
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EMBL; X03425; CAA27155.1;
EMBL; X03426; CAA27156.1;
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P33717;
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cross-reactivities.";
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                                                            REVISIONS
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DOMAIN
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IGF2_SHEEP
ID_IGF2_S1
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  SOLUTION OF THE STANKING THE ST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: The insulin-like growth factors possess growth-promoting
                        activity. In vitro, they are potent mitogens for cultured cells. IGF-II is influenced by placental lactogen and may play a role in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 6-62 FROM N.A.

MEDLINE=93083057, PubMed=1280544;

MEDLINE=93083057, PubMed=1280544;

Congote I.F., Mazza L., Palfree R.G.E.;

"Nuclectide sequence of the central coding region of bovine erythrotropin/insulin-like growth factor II cDNA from fetal intestine and northern analysis of the major IGF II transcripts at the time of hepatic erythropoiesis."

Comp. Biochem. Physiol. 103B:127-131(1992).
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Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Liver;
MEDLINE=90356421; PubNed=2388846;
Brown W.M., Dziegielewska K.M., Foreman R.C., Saunders N.R.;
Brown ucleotide and deduced amino acid sequences of insulin-like growth factor II cDNas from adult bovine and fetal sheep liver.";
Nucleic Acids Res. 18:4614-4614 (1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-APR-1998 (Rel. 07, Created)
10-PAR-1992 (Rel. 22, Last sequence update)
10-0CT-2003 (Rel. 42, Last amnotation update)
Insulin-like growth factor II precursor (IGF-II) (Erythrotropin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Honegger A., Humbel R.E.; "Insulin-like growth factors I and II in fetal and adult bovine serum. Purification, primary structures, and immunological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 222; DB 1; Length 66; Pred. No. 9.9e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11; Indels
                                                                                                                                                                                                                                                                                                                                                                                              A018C0E71D5EB1E2 CRC64;
                                                        feral development.

-! SUBCELLULAR LOCATION: Secreted.
-!- SUBLIMENTY: Belongs to the insulin family.
HSSP; PO1344; 1GF2.
InterPro; IPR004812; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; INGT.
INSULINB.
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MEDLINE=86085881; PubMed=3941093;
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67.2%;
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P07456;
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL OUTSTAIRT the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                            MEDLINE=88268820; PubMed=3390164;
Francis G.L., Upton F.M., Ballard F.J., McNeil K.A., Wallace J.C.;
"Inpulin-like growth factors 1 and 2 in bovine colostrum. Sequences
and biological activities compared with those of a potent truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.1 Q., Blacher R., Esch F., Congote L.F.;
"A heparin-binding erythroid cell stimulating factor from fetal
bovine serum has the N-terminal sequence of insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57.7%; Score 222; DB 1; Length 155; 67.2%; Pred. No. 2.5e-20; tive 3; Mismatches 13; Indels
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50A45E3549397E0F CRC64;
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EMBL; X53867; CAA37861.1; -.
PIR; S10983; IGBD2.
HSSP; P01344; IGF2.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SWART; SW00078; IIGF; 1.
Insulin family; Mitogen; Growth factor.
NON TER 1 67 INSULIN-LIKE
CHAIN 1 67 INSULIN-LIKE
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Biol. Chem. 261:569-575(1986).
                                                                                                                                                                                                                                                                                                                                                                                 [5]
SEQUENCE OF 1-31.
MEDLINE=90147754; PubMed=2302223;
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TISSUE=Liver;
MEDLINE=89345107; PubMed=2762134;
O'Mahoney J.V., Adams T.E.;
"Nucleoride sequence of an ovine insulin-like growth factor-II cDNA.";
Nucleic Acids Res. 17:5392-5392(1989).
                                                                                                                                                                                                                                                                                                                    STRAIN=Coopworth; TISSUE=Liver;
MEDLINE=93250051; PubMed=8485157;
Demmer J., Hill D.F., Perersen G.B.;
Characterization of two sheep insulin-like growth factor II cDNAs with different 5'-untranslated regions.";
Biochim. Biophys. Acta 1173:79-80(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 25-91.
MEDLINE-89136887; PubMed-2537174;
Francis G.L., McNeil K.A., Wallace J.C., Ballard F.J., Owens P.C., "Sheep insulin-like growth factors I and II: sequences, activities
                                                                  Ovis aries (Sheep).
Nakaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Eutheria, Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                               TISSUE-Liver;
MEDINE=90356421; PubMed=2388846;
MEDINE=90356421; PubMed=2388846;
Brown W.M., Daziegielewska K.M., Foreman R.C., Saunders N.R.;
"The nucleotide and deduced amino acid sequences of insulin-like growth factor II cDNAs from adult bovine and fetal sheep liver.";
Nucleic Acids Res. 18:4614-4614(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                             Ohlsen S.M., Wong E.A.;
Submitted (SEP-1990) to the EMBL/GenBank/DDBJ databases.
        01-JUL-1989 (Rel. 11, Created)
01-OCT-1989 (Rel. 12, bast sequence update)
10-OCT-2003 (Rel. 42, bast amotation update)
Insulin-like growth factor II precursor (IGF-II).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fetal development.
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indocrinology 124:1173-1183(1989)
                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                 Ovis aries (Sheep)
                                                                                                                                     SECUENCE FROM N.A.
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                                                                                                                NCBI_TaxID=9940;
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                                                                                                                                                                                                                                                                                                                                                    3 ETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=87053171; PubMed=3780370; Stempien M.M., Fong N.M., Rall L.B., Bell G.I.; Stempien M.M., Fong N.M., Rall L.B., Bell G.I.; Squarec of a placental cDNA encoding the mouse insulin-like growth Eactor II precursor."; DNA 5:357-361(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-97191545; PubMed-9039503; Sasaki H., Shimozaki K., Zubair M., Aoki N., Hatano N., Moore T., Sasaki H., Shimozaki K., Zubair M., Rotwein P., Feil R., Constancia M., Reik W., Rotwein P., Mucleotide sequence of a 28-kb mouse genomic region comprising the imprinted Igf2 gene."; DNA Res. 3:331-335(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-1989 (Rel. 10, Created)
01-MAR-1989 (Rel. 10, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
Insulin-like growth factor II precursor (Multiplication stimulating polypeptide) (IGF-II).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse).
Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Buteria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                              . 9
                                                                                                                                                                                                                                                                                                  57.7%; Score 222; DB 1; Length 179; 67.2%; Pred. No. 2.9e-20; tive 3; Mismatches 13; Indels
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A.
D.
B. PEPTIDE.
BY SIMILARITY.
BY SIMILARITY.
GD -> DG (IN REP. 5).
W; 7B369AE5772E44378 CRC64;
                                                HSSP; P01344; 1GF2.
InterPro; IRRO04825; Ins/IGF/relax.
InterPro; IRRO04825; Ins/IGF/relax.
PRINTS; PR00277; INSULINB.
SMART; SM00708; IIGF.
INSULINS; INSULINS.
INSULINS; INSULINS.
INSULINS; INSULINS.
INSULINS; INSULINS.
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                                                                                                                                                                                                                                                                              19616 MW;
EMBL; M89788; AAA31548.1; -. EMBL; M89789; AAA31549.1; -. EMBL; X55638; CAA39163.1; -. PIR; S04858; S04858.
                                                                                                                                                                                                                                                                                                                  llarity 67.2%;
Conservative
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es 45; Conserv
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MEDINE=89160812; PubMed=2537977;

MIDIAGEON S.E., Sadow J.L., Rowein P.;

Tollefsen S.E., Sadow J.E., Rowein P.;

Tocordinate expression of insulin-like growth factor II and its

receptor during muscle differentiation.";

Proc. Natl. Acad. Sci. U.S.A. 86:154-1547(1989).

I. PUNCTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells.

IGF-II is influenced by placental lactogen and may play a role in fetal development.

-!- SUBCELLULAR LOCATION: Secreted.

-!- SUBCELLULAR LOCATION: Secreted.

-!- DEVELOPMENTAL STAGE: Low levels of expression during myoblast proliferation. Levels rise rapidly during myoblast differentiation and then decrease.

-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bloinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way entities requires a license agreement (See http://www.isb-sib.ch/announce) or send an email to license@isb-sib.ch)
TRAINGE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAINGE-2138/627; PubMed=12477932;

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Atlaster R.D., Collins P.S., Wagner L., Schemen C.M., Schuler G.D.,

Altschul S.F., Zeeborg B., Buttow K.H., Schemen C.M., Schuler G.D.,

Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A platchen M.J., Marushina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M.J., Josdin T.B., Toshiyuki S., Carninci F., Prange C.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci F., Prange C.,

A Raha S.S., Lorgellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,

Brownstein M.J., McEwran K.J., Malek J.A., Gibbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Nilalon D.K., Wuzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

Raha S.S., C., Grimwood J., Schewtchenko Y., Bouffard G.G.,

A Mitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length

Full M. Human and mouse cDNA sequences",

IL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INSULIN-LIKE GROWTH PACTOR II.
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E PEPTIDE.
BY SIMILARITY.
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DOMAIN
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-!-SIMILARITY: Belongs to the insulin family.

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                                                                                                                                                                                                                                       59
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Otte K., Engstrom W.;
Otte K., Engstrom W.;
Otte R., Engstrom M.;
Otte R., Engerowth factor II in the horse: determination of a cDNA nucleotide sequence and expression in fetal and adult tissue.";
Gen. Comp. Endocrinol. 96:270-275(1994).
-!- FUNCTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells.
IGF-II is influenced by placental lactogen and may play a role in fetal development.
                                                                                                                                                                                                                                                                       27 GPGETLCGGELVDTLQFVCSDRGFYFSRP----SSRANRRSRGIVEECCFRSCDLALLET
                                                                                                                                                                                                                                    1 GP-ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IGF2.
Equus caballus (Horse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Perissodactyla, Equidae, Equus.
NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P51459; 018837; 010837; 01007-1996 (Rel. 34, Created) 01-007-1996 (Rel. 36, Last sequence update) 15-UUL-1998 (Rel. 42, Last annotation update) 10-007-2003 (Rel. 42, Last annotation update) Insulin-like growth factor II precursor (IGF-II) (Somatomedin A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECURNCE FROM N.A. MEDLINE=97398422; PLDMed=9250862; Raudsepp T., Otte K., Rozell B., Chowdhary B.P.; FIRSH mapping of the IGF2 gene in horse and donkey-detection of homoeology with HSA11.";
                                                                                                               Score 220.5; DB 1; Length 180;
Pred. No. 4.4e-20;
3; Mismatches 14; Indels 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMEAR; SW00078; ILGF; 1.

PROSITE; PS00262; INSULIN; 1.

Insulin family; Micogen; Growth factor; Signal.

24 SIMILARITY.

INSULIN-LIKE GROWTH FACTOR II.
                                                            01730F8856EE6D7B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 AA.
BY SIMILARITY
BY SIMILARITY
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EMBL; U11241; AAA73915.1; --
PIR; 153642; I55642.
HSSP; P01344; IGF2.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
   84 BY
75 BY
20030 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mamm. Genome 8:569-572(1997).
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                                                                                                            Ouery Match
Best Local Similarity 65.7°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                             83 YCA--TPAKS 90
                                                                                                                                                                                                                                                                                                                                                             60 YCAPLKPAKS 69
                                                               180 AA;
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   DISULFID
                                                               SEQUENCE
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send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                  45; Conservative
                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                       63 PLKPAKS 69
                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN=Buffalo;
                                                                                                                                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                          86 -- TPAKS
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DISULPID
DISULPID
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                                                                                                                                      ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA 62
                                                                                                                                                        85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'Comparative sequence analysis of the INS-IGF2-H19 gene cluster in
                                                                                                                                                                                                                                                                                                Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
NCDI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDILINE-91057116; PubMed=2243790;
Carchpole I.R., Engernoem W.;
"Nucleotide sequence of a porcine insulin-like growth factor II
                                                                                                                      . 9
                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=Large white;
MEDLINE=22135956; PubMed=12140686;
AMBTINE 20. NGDYPEN M., Laere A.S., Braunschweig M., Nezer C.,
Georges M., Andersson L.;
                                                                                                  Score 220; DB 1; Length 181;
Pred. No. 5.1e-20;
                                                                                                                     11; Indels
C. D. B. PEPTIDE. BY SIMILARITY. BY SIMILARITY. BY SIMILARITY. BY SIMILARITY. C. V. - A G (IN REF. 2). V. - A G (IN REF. 2). W, B88F9695IC87AA12 CRC64;
                                                                                                                                                                                                                                                            01-NOV-1991 (Rel. 20, Created)
01-PEB-1996 (Rel. 33, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor II precursor (IGF-II)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                           181 AA
                                                                                                                      5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic Acids Res. 18:6430-6430(1990)
                                                                                                                                                                                                                                          PRT;
                                                                                   20360 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mamm. Genome 13:388-398(2002).
                                                                                                    57.1%;
                                                                                                            Similarity 67.2 Sconservative
                                                                                                                                                                                                                                           STANDARD;
                                                                111
113
181 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30 BTLCGGELVDTLQFVCGDRGFYFSRFA--SRVNRRS--RGIVEECCFRSCDLALLETYCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Mětazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAR-1987 (Rel. 04, Last sequence update) (LoCT-2003 (Rel. 04, Last sequence update) (LoCT-2003 (Rel. 42, Last annotation update) (Insulin-like growth factor II precursor (Multiplication stimulating polypebtide) (IGF-II) (Multiplication stimulating activity) (MSA). IGF2 OR IGF-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=87226166; PubMed=2438416;
Soares M.B., Turken A., Ishil D.N., Mills L., Episkopou V., Cotter
Zeitlin S., Efetratiadis A.,
Est insulin-like growth factor II gene. A single gene with two
promoters expressing a multitranscript family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-85215534; PubMed-3889836;
Soares M.B., Ishii D.N., Efstratiadis A.;
"Developmental and tissue-specific expression of a family of
transcripts related to rat insulin-like growth factor II mRNA.
Nucleic Acids Res. 13:1119-1134 (1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=BRL-3A; MubMed=6382022; MEDLINE=6429553; PubMed=6382022; Gray A., Hayflick J.S., Ullrich A.; Gray A., Hayflick J.S., Ullrich A.; Insulin-like growth factor II precursor gene organization in relation to insulin gene family."; Nature 310:777-781(1984).
                                                                                                                                                                            SMART; SW00078; 1.25., ...
INSULIN; 1.
INSULIN family; Mitogen; Growth factor; Signal.
ISIGNAL ...
SIGNAL ...
91 INSULIN-LIKE GROWTH FACTOR II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1816B935299B4E1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.1%; Score 220; DB 1; 67.2%; Pred. No. 5.1e-20; iive 5; Mismatches 11;
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D. PEPTIDE.
BY SIMILARITY.
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EMBL; X56094; CAA39574.1; -.
EMBL; AY044628; AAL69551.1; -.
HSSP; PO1344; 1GF2.
INTERPRO; IPRO04825; INS/IGF/relax.
Pfam; PRO049; INSULINB.
SMART; SMO0079; IIGF: 11
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Interpro; IPR004825; Ins/IGF/relax.
Pfam, PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
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20086 MW;
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                                                                                                                                                                                                                                                                                                                                                                    44; Conservative
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                                                                                                                                                                                                                                                                                                    180 AA;
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HSSP; P01344; 1GF2
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                                                                                                                           MYXGL
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IGF_MYXGL
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1 - SUBCELLULAR LOCATION: Secreted.

1 - SIMILARITY: Belongs to the insulin family.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=81215670; PubMed=7016879; MEDLINE=81215670; PubMed=7016879; Marquardt H., Todaro G.J., Henderson L.E., Oroszlan S., Marquardt H., Todaro G.J., Henderson L.E., Oroszlan S., Purification and primary structure of a polypeptide with multiplication-stimulating activity from rat liver cell cultures. Homology with human insulin-like growth factor II.", J. Biol. Chem. 256:6859-6855(1981).

J. Biol. Chem. 256:6859-6855(1981).

J. FUNCTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells. IGF-II is influenced by placental lactogen and may play a role in
                                                                                                                                                                                                                                                                                 SEQUENCE OF 62-180 FROM N.A.
MEDLINE-65601532; PubMed-6390312;
Whitfield H.J., Bruni C.B., Frunzio R., Terrell J.E.,
Wissley S.P., Rechler M.M.;
"Isolation of a cDNA clone encoding rat insulin-like growth factor-II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing.";
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 103-180 FROM N.A.
MEDLINE-89127259; PubMed-3221878;
Chiariotti L., Brown A.L., Frunzio R., Clemmons D.R., Rechler M.M.,
                                                                                         "GETUCEURE and expression of the rat insulin-like growth factor II (rIGF-II) gene. rIGF-II RNAs are transcribed from two promoters."; J. Biol. Chem. 261:17138-17149(1986).
                                       MEDLINE-87057436; PubMed=3023383;
Frunzio R., Chiariotti L., Brown A.L., Graham D.E., Rechler M.M.,
Bruni C.B.;
                                                                                                                                                          EMBL; X00911; CAA25428.1; -.
EMBL; X00911; CAA25427.1; ALT INIT.
EMBL; X00911; CAA25429.1; ALT_INIT.
EMBL; M13871; AAB95624.1; ALT_INIT.
EMBL; M13869; AAB95624.1; JOINED.
EMBL; M13870; AAB95624.1; JOINED.
EMBL; M29800; AAA41391.1; -.
EMBL; X02213; CAA26136.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mol. Endocrinol. 2:1115-1126(1988)
Mol. Biol. 192:737-752(1986)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA41432.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAA32942.1;
CAA32943.1;
                                                                                                                                                                                                                                                                                                                                                                                     Nature 312:277-280(1984).
                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                         precursor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Gaps
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MEDLINE=91115860; PubMed=1989990;
Magamatsu S., Chan S.J., Falkmer S., Steiner D.F.;
Magamatsu S.J., Falkmer S., Steiner D.F.;
Magamatsu S.J., Falkmer S., Steiner D.F.;

Broblution of the insulin gene superfamily. Sequence of a preproinsulin-like growth factor cDNA from the Atlantic hagfish.";
J. Biol. Chem. 266:2397-2402(1991).
I. FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
I. SUBCELLULAR LOCATION: Secreted.
I. SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-1991 (Rel. 18, Created)
01-MAY-1991 (Rel. 18, Last sequence update)
01-MAY-1991 (Rel. 18, Last annotation update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor precursor (IGF) (Fragment).
Myxine glutinosa (Atlantic hagfish).
Bukaryota, Metazoa; Chordata; Craniata; Hyperotreti; Myxiniformes;
Myxinidae; Myxiniae; Myxine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56.6%; Score 218; DB 1; Length 180; 65.7%; Pred. No. 9e-20; tive 3; Mismatches 14; Indels
                                                                                                                                                                                                                                            INSULIN-LIKE GROWTH FACTOR II.
                                                                                                                                                                                                                                                                  Interpro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM0078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Micogen; Growth factor; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139 AA
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29; Conservative
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P01337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON CONS
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DISULFID
SEQUENCE
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                                                                                                                                    셤
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 ETLCGSELVDTLQFVCDDRGFFFVPQHVPPRRGAHRRSRARKGIVEECCFKGCSLRLLEM 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ETLCGAELVDALQFVCGDRGFYF---NKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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SEQUENCE.
CULFIELD 5.25155;
CULFIELD 0.F., Cutfield S.M., Carne A., Emdin S.O., Falkmer S.;
CULFIELD 0.F., Cutfield S.M., Carne A., Emdin S.O., Falkmer S.;
The isolation, purification and amino-acid sequence of insulin from the teleost fish Cottus scorpius (daddy sculpin).";
Eur. J. Biochem. 158:117-123(1986)
-i- FUNCTION: Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.
-:- SUBUNIT: Heterodimer of a B chain and an A chain linked by two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Myoxocephalus scorpius (Shorthorn sculpin) (Daddy sculpin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Meopterygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Scorpaeniformes;
Cottoidei; Cottidee; Myoxocephalus.
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                                                                                                                                                                       INSULIN-LIKE GROWTH FACTOR.
B.
A.
D.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 206.5; DB 1; Pred. No. 1.8e-18; Indels
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                       disulfide bonds.
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 53.6%; Scott No. 1.c. 57.1%; Pred. No. 1.c. 10, Mismatches 10; Mis
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01-APR-1988 (Rel. 07, Last sequence update)
10-0CT-2003 (Rel. 42, Last annotation update)
Insulin.
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29 INSULIN B CHAIN.
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HSSP, P01308; ILPH.
HSSP, P01308; ILPH.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                      16087 MW;
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Insulin family; Hormone; Gluc
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5682 MW;
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40; Conservative
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SM00078; IlGF; 1
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                                                                                                                                                                                                                                                                                                                                                                                                      139 AA;
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Best Local Similarity
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Matches 40,
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DISULFID
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                                                                               3 POHLCGSHLVDALYLVCGDRGFPYN------PKGIVEQCCHRPCNIRVLENYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PETLOGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reid K.B.M., Grant P.T., Youngson A.; "The sequence of amino acids in insulin isolated from islet tissue of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 PETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYC
  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-68131535; PubMed-4866431; MEDLINE-68131535; PubMed-4866431; MEDLINE-68131535; PubMed-4866431; MEDLINE-681353; PubMed-986431; Medantion and a partial amino acid sequence of insulin from the islet tissue of cod (Gadus callarias)."; Biochem. 0. 106:531-541(1968).

-!- PUNCTION: Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.

-!- SUBUNIT: Heterodimer of a B chain and an A chain linked by two
                                                                                                                                                                                                                                                                                                                                                                             Gadus callarias (Baltic cod).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actimopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
  13;
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  10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11; Indels
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Pred. No. 5.2e-13;
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                                                                                                                                                                                                                         INS_GADCA STANDARD; PRT; 51 AA. P01336; 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 10-OCT-2003 (Rel. 42, Last annotation update)
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(Rel. 01, Last sequence update)
(Rel. 42, Last annotation update)
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PRINTS; PRO0277; INSULINB.
SMART; SMOOD(9): IIGF; 1.
PROSITE; PSO0262; INSULIN; 1.
INSULIN family; Hormone; Glucose metabolism.
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8; Mismatches
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MEDLINE=69061739; PubMed=4881974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the cod (Gadus callarias).";
Biochem. J. 110:289-296(1968).
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nes 29; Conservative
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21-JUL-1986
10-OCT-2003
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                                                                                                                                  MEDLINE=66160119; PubMed=5949593;
Smith L.F.;
"Species variation in the amino acid sequence of insulin.";
"Species variation in the amino acid sequence of insulin.";
Am. 0. Med. 40:662-666(1966).
-!- FUNCTION: Insulin decreases blood glucose concentration. It
increases cell permeability to monosaccharides, amino acids and
fatty acids. It accelerates glycolysis, the pentose phosphate
cycle, and glycogen synthesis in liver.
-!- SUBUNIT: Heterodimer of a B chain and an A chain linked by two
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Am. J. Med. 40:662-666(1966).
-!- FUNCTION: Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.
-!- SUBDNIT: Heterodimer of a B chain and an A chain linked by two disulfide bonds.
Insulin 1.
Batrachoididae sp. (Toadfish).
Batrachoididae sp. (Toadfish).
Actinopteryai, Metarygii; Toleostei; Buteleostomi,
Actinopterygii; Neopterygii; Toleostei; Buteleostei;
Acanthomorpha; Paracanthopterygii; Batrachoididae.
[1] TaxID=8066;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Batrachoididae sp. (Toadfish),
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Paracanthopterygii; Batrachoididae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 155.5; DB 1,
Pred. No. 1.2e-12;
Thes 11; Indels 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A51E0BA42483705A CRC64;
                                                                                                                                                                                                                                                              disulfide bonds.
--- SUBCELLULAR LOCATION: Secreted.
--- SINILARITY: Belongs to the insulin family.
HSSP; P01308; ILPH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
PIR; A01605; INTO2.
HSSP; P01308; 1A10.
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21-JUL-1986 (Rel. 01, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                       INSULIN B CHAIN.
                                                                                                                                                                                                                                                                                                                             INTERPRO, IPRO04825, INS/IGP/relax.
PRINTS, PR00277, INSULINB.
SMART, SMOOD78, IGF, 1.
PROSITE, PS00262, INSULIN; 1.
INSULIN family; Hormone; Glucose metabolism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERCHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=66160119; PubMed=5949593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 40.4%;
1 Similarity 46.7%;
28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51 AA; 5776 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                     31
37
50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 38
INS2_BATSP
ID _INS2_BATSP
AC P01338;
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Best Local (
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Matches
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                                                                                                                                                                                                                   2 PETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Βĭ
                                                                                                                                                                                            14; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES=H.collie1;
MEDLINE=87054620; PubMed=3780981;
Conlon J.M., Dafgard E., Falkmer S., Thim L.;
"The primary structure of ratfish insulin reveals an unusual mode of proinsulin processing.";
FEBS Lett. 208:445-450(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLALARE LOCATION: Secreted.
-!- MISCELLANEOUS: DUE TO & SUBSTITUTION OF THE ARG IN POSITION 31 E
AN ILE, THIS INSULIN B CHAIN IS LONGER THAN MOST OTHER B CHAINS
AND IS PROCESSED DIFFERENTLY.
-!- SIMILARITY: Belongs to the insulin family.
PIR; S06479; INPT
                                                                                                                                                                                                                                                                                                                                                                                            Eydrolagus colliei (Spotted ratfish) (Pacific ratfish), and Chimaera monstrosa (Rabbit fish).
Makaryota: Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes; Holocephali; Chimaeriformes; Chimaeridae; Hydrolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPECIES=H.colliei,
MEDLINE=89153911; PubMed=2646172;
Conlon J.M., Goeke R., Andrews P.C., Thim L.;
"Multiple molecular forms of insulin and glucagon-like peptide from the Pacific ratfish (Mydrolagus colliei).";
Gen. Comp. Endocrinol. 73:136-146(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 154; DB 1; Length 50; Pred. No. 1.8e-12;
                                                                                                                                                                                          10; Indels
                                                                                                                                        903E8AACBD62137C CRC64;
                   PARARY, SMOOOTS, IIGF; 1.
SMARY, SMOOOTS, IIGF; 1.
FROSTE, PSOO262, INSULIN; 1.
Insulin family; Hormone; Glucose metabolism.
29 INSULIN B CHAIN.
                                                                                       INSULIN A CHAIN.
INTERCHAIN.
                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                          8; Mismatches
                                                                                                                                                                                                                                                                                                            59 AA
                                                                                                               INTERCHAIN
InterPro, IPR004825; Ins/IGF/relax.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                    01-MAR-1989 (Rel. 10, Created)
01-MAR-1989 (Rel. 10, Last seq
10-OCT-2003 (Rel. 42, Last ann
                                                                         30
50
36
49
40
5652 MW,
                                                                                                                                                                   40.0%;
                                                                                                                                                                                Local Similarity 46.7%;
nes 28; Conservative
                                                                                                                                                                                                                                                                                                            STANDARD;
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2
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                                                                                                                                                                                                                                                                                                                                                                                            4 QRLCGSHLVDALYFVCGERGFFYSPKPI----RELEPLLGIVEQCCHNTCSLANLEGYC
                                                                                                                                                                                                                                                                                                                           6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wood S.P., Blundell T.L., Wollmer A., Lazarus N.R., Neville R.W.J.;
"The relation of conformation and association of insulin to receptor
binding; X-ray and circular-dichroism studies on bovine and
hystricomorph insulins.";

Bur. J. Biochem. 55:531-542(1975).
I. FUNCTION: Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.
SUBJUIT: Heterodimer of a B chain and an A chain linked by two disulfide bonds.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chinchilla brevicaudata (Chinchilla).
Bukaryota, Metazoa, Chordata, Craniata; Vertebrata, Buteleostomi,
Mammalia; Butheria; Rodentia; Hystricognathi, Chinchillidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 149; DB 1; Length 51;
Pred. No. 7.7e-12;
5; Mismatches 12; Indels
                                                                                                                                                                                                                                                                                 39.2%; Score 151; DB 1; Length 59; 48.3%; Pred. No. 5.1e-12; ive 9; Mismatches 16; Indels
                                                                                                                                                                                                                                                                                                                             16; Indels
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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8F7EC904691A78A0 CRC64;
                                                                                                                                                                                                                                            8827A57A9ED6D4AC CRC64;
HSSP, P01308; 1H1S.
InterPor, IRRO04825; Ins/IGF/relax.
InterPor, IRRO04825; Ins/IGF/relax.
SMART; PR0077; INSULINB.
PROSITE, PS00262; INSULIN, 1.
PROSITE, PS00262; INSULIN, 1.
INSULIN family; Hormone; Glucose metabolism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SUBCELLUTAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin family.
PIR; A01593; INCB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P01327;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00262; INSULIN; 1.
Insulin family; Hormone; Glucose metabolism.
CHAIN 1 30 INSULIN B CHAIN.
                                                                                                                                                           INSULIN A CHAIN.
                                                                                                                                                                                                    INTERCHAIN.
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PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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MEDLINE=76022416; PubMed=1175610;
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1 Similarity 49.1%;
28; Conservative 5
                                                                                                                                                                                                                                            6606 MW;
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Best Local Similarity
Matches 28; Conserv
                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 29; Conserv
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NCBI_TaxID=10152;
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DISULFID
SEQUENCE
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INS_CHIBR
  В
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5 LCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYC 61

12; Indels 12; Gaps

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6 LCGSHLVDALYLVCGDRGFFY-----TPMAGIVDQCCTSICTLYQLENYC 50
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completed: February 25, 2004, 06:23:02 ne : 11.7299 secs Search cor Job time

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A,Molecule type: mRNA
A,Residues: 1.137 <BEL>
A,Residues: 1.137 <BEL>
A,CTOSS-Inflance: EMBL.X52951
A,Note: it is uncertain whether Met-1 or Met-8 is the initiator
C,Superfamily: insulin
C,Swporfamily: insulin
C,Kaywords: ajlvoportein; growth factor; plasma
F,132/Domain: signal sequence #status predicted <&ICS
F,33-102/Product: insulin-like growth factor I #status predicted <MAT>
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1 GPETLCGAELVDALQFVCGD.....SCDLRRLEMYCAPLKPAKSA 70
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Insulin-like
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insulin-like
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GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                    tal number of hits satisfying chosen parameters:
                                                                                                                                                                                              283366 segs, 96191526 residues
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Maximum Match 100%
Listing first 45 summaries
                                            protein - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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IGGP1
A36552
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Match Length DB
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No.
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	10 10 10 10 10 10 10 10	ALIGNMENTS	RESULT 1 PN0622 insulin-like growth factor Ia precursor - dog (fragment) C;Species: Canis lupus familiaris (dog) C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 07-May-1999 C;Accession: PN0622 R;Pelafontaine, PN, Lou, H.; Harrison, D.G.; Bernstein, K.E.	Gene 120, 300-310, 1935 A,Title: Sequence of a CDNA encoding dog insulin-like growth factor I. A,Taterence number: PN0622; MUID:93366192; PMID:8359700 A,Accession: PN0622 A,Wolecule type: mRNA A,Residues: 1-122 C,Comment: This protein is a potent inducer of DNA synthesis in multiple cell type: C,Genetics:	A.Gene: IGFLa C.Superfamily: insulin C.Keywords: growth factor F.20-89/Product: insulin-like growth factor Ia (fragment) #status predicted <mat></mat>	Ouery Match Best Local Similarity 100.0%; Score 385; DB 2; Length 122; Best Local Similarity 100.0%; Pred. No. 1.8e-37; Matches 70; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	Qy 1 GBETLCGAELVDALQEVCGDRGFYENKPTGYGSSSRRAEQTGIVDECCFRSCDLRRLEWY 60	Oy 61 CAPLKPAKSA 70 	RESULT 2 IGGR1 insulin-like growth factor I precursor - guinea pig C;Species: Cavia porcellus (guinea pig) C;Species: Cavia porcellus (guinea pig) C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 07-Nov-1997 C;Accession: 812719 #Sequence_revision N.M.; Seino, S. R;Bell, G.I.; Stempian, M.M.; Fong, N.M.; Seino, S. Nucleic Acids Res. 18, 4275, 1990 A;Title: Sequence of a cONA encoding guinea pig IGF-I. A;Title: Sequence of a cONA encoding guinea pig IGF-I.
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us-10-066-009a-1.rpr

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A)Cross-references: GB.M27544, NID:g184829, PIDN:AAA52787.1, PID:g306927
R)Rinderknecht, E.; Humbel, R.E.
G. Biol. Chem. 253, 2759-2276, 1978
A)Title: The amino acid sequence of human insulin-like growth factor I and its structura A)Reference number: A92226, MUID:78130171; PMID:632300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-123, W. 125-132, Y. 25,134-153 <SAN>
A; Residues: 1-123, W. 125-132, Y. 25,134-153 <SAN>
A; Experimental source: anaplastic oligodendroglioma
A; Experimental source: anaplastic oligodendroglioma
A; Note: sequence extracted from NCBI backbone (NCBIN:133056, NCBIP:133057)
A; Note: sequence inconsistent with the nucleotide translation
B; Rall, L.B.; Scott, J.; Bell, G.I.
Meth. Enzymol. 146, 239-248, 1887
A; Title: Human insulin-like growth factor I and II messenger RNA: isolation of complemen
A; Reference number: 157044; MUID:88065102; PMID:3683205
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A;Accession: A60483
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R;Sandberg-Nordqvist, A.C.; Stahlbom, P.A.; Reinecke, M.; Collins, V.P.; von Holst, H.;
Cancer Res. 53, 2475-2478, 1993
A;Title: Characterization of insulin-like growth factor 1 in human primary brain tumors.
A;Reference number: A48960; MUID:93265440; PMID:8495408
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A;Cross-references: GB:M29644; NID:g183119; PIDN:AAA52543.1; PID:g183120
C;Comment: The insulin-like growth factors, isolated from plasma, are structurally and f
C;Comment: For an alternative splice form, see PIR:IGHUIB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Title: Complete characterization of the human IGF-I nucleotide sequence isolated from A;Reference number: A23622; MUID:86108910; PMID:2935423
R;Jansen, M.; van Schaik, F.M.A.; Ricker, A.T.; Bullock, B.; Woods, D.E.; Gabbay, K.H.; Nature 306, 609-611, 1983
A;Title: Sequence of cDNA encoding human insulin-like growth factor I precursor.
A;Reference number: A93321; MUID:84068210; PMID:6358902
                                                                                                                                                                                                                                                                                                                      A; Cross-references: GB:X00173; NID:g33015; PIDN:CAA24998.1; PID:g33016
A;Note: Met-24 is proposed as a likely initiator
R;Steenbergh, P.H.; Koonen-Reemst, A.M.C.B.; Cleutjens, C.B.J.M.; Sussenbach, J.S.
Biochem. Biophys. Res. Commun. 175, 507-514; 1991
A;Title: Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.
A;Reference number: JT0571; NUID:91207342; PMID:2018498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:XS7025; NID:933007; PIDN:CRA40342.1; PID:933008 R;Le Bouc, Y.; Dreyer, D.; Jaeger, F.; Binoux, M.; Sondermeyer, P. FEBS Lett. 196, 108-112, 1966
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A;Molecule type: protein
A;Residues: 49-53, Xr,55-65, Xx, 67-75 < KAR>
A;Residues: 49-53, Xr,55-65, Xr, 67-75 < KAR>
A;Experimental source: platelet lysate
R;Nordqvist Sandberg, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
B;Nordqvist Sandberg, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
A;Nordqvist Compare EMBL Data Library, November 1990
A;Reference number: S10519
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A;Residues: 49-118 <RIN>
R;Karey, K.P.; Marquardt, H.; Sirbasku, D.A.
Blood 74, 1084-1092, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-153 <STE>
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A; Residues: 1-153 < LEB>
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A;Residues: 1-153 <NOR>
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A;Gene: GDB:IGF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tobin, G.; Yee, D.; Bruenner, N.; Rotwein, P.
1. Endocrinol. 4, 1914-1920, 1990
Title: A novel human insulin-like growth factor I messenger RNA is expressed in normal Reference number: A36552; MUID:91187000; PMID:2082190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nsulin-like growth factor I precursor, splice form A [validated] - human
Alternate names: IGF-I long splice form precursor; IGF-IA; somatomedin C
Specials: Homo sapiens (man)
Date: 24-Apr-1984 #sequence revision 30-Jun-1987 #text change 31-Dec-2000
Accession: A92581; A23614; A33321; JT0571; A23622; A92226; A60483; S30519; A48960; IS7
Rotwein, P.; Pollock, K.M.; Didler, D.K.; Krivi, G.G.
Biol. Chem. 261, 4828-4832, 1986
Jitle: Organization and sequence of the human insulin-like growth factor I gene. Alter
Reference number: A92581; MUID:86168194; PMID:2937782
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"Residues: 1-153 «ROTS".
"Cross-references: GB:M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
"Gross-references: GB:M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
"Gross-references: GB:M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
"BES Lett. 195, 179-184, 1986
"Jitle: Organization of the human genes for insulin-like growth factors I and II.
"Reference number: A91356; MJID:86108862; PMID:3002851
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%, Residues: 24 DEP>
%, Cross-references: GB:X03420, GB:X00362, NID:g33020, PIDN:CAA27152.1; PID:g33021, GB:X0
                   3-61/Domain: insulin chain B-like #status predicted <CHB>
2-73/Domain: insulin connecting C peptide-like #status predicted <CHC>
4-94/Domain: insulin chain A-like #status predicted <CHA>
5-102/Domain: D peptide #status predicted <CHD>
03-1137/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CHE>
24/Binding site: carbohydrate (Asn) (covalent) #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sulin-like growth factor la precursor - human
Species: Homo sapiens (man)
Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                nery Match 100.0%; Score 385; DB 1; Length 137; lest Local Similarity 100.0%; Pred. No. 2e-37; latches 70; Conservative 0; Mismatches 0; Indels
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100.0%; Score 385; DB 2; Length 137;
Best Local Similarity 100.0%; Pred. No. 2e-37;
Matches 70; Conservative 0; Mismatches 0; Indels (
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Molecule type: mRNA
Residues: 1-137 <TOB>
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Title: Purification, amino acid sequences and assay cross-reactivities of porcine instracteronce number: A60738; MUID:90039035; PMID:2809477; A60738; MUID:90039035; PMID:2809477
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submitted to the BMBL Data Library, November 1989
A,Description: Porcine Insulin-like growth factor gene: sequence of exon and 5' non-cod
A,Reference number: S21488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1-21 <DIC>
A;Residues: 1-21 <DIC>
A;Cross-references: EMBL:X17638; NID:g1995; PIDN:CAA35632.1; PID:g1996
A;Cross-references: EMBL:X17638; N.C.M.
A;Tavekkol, A.; Simmen, R.C.M.
Mol. Endocrinol. 2, 674-681, 1988
A;Title: Porcine insulin-like growth factor-I (pIGF-I): complementary deoxyribonucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Alternate names: somatomedin C
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 13.-Jan-1995 #sequence revision 13.-Jan-1995 #text_change 16.-Jul-1999
C;Accession: S12825; S21488; A34938; A60738
R;Mueller, M.; Brem, G.
Nucleic Acids Res. 18, 364, 1990
Nucleic Acids Res. 18, 364, 1990
A;Title: Nucleotide sequence of porcine insulin-like growth factor I: 5' untranslated A;Reference number: S12825; MUID:90221822; FMID:2326169
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                                                                                                                                                                   108
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                                                                                                    1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                 Gaps
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A;Residues: 'Y',21-153 <TAV>
A;Crose-references: GB M31175
A;Crose-references: GB M31175
A;Francis, G.L.; Ownes, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol, 122, 681-687, 1989
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C;Superfamily: insulin
C;Keywords: growth factor
F;L-22/Domain: signal sequence #status predicted <SIG>
F;23-48/Domain: propertide #status predicted <PRO>
F;23-48/Domain: propertide #status predicted <PRO>
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Pred. No. 2.2e-37;
Mismatches 0;
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100.0%; Score 385; DB 2;
Best Local Similarity 100.0%; Pred. No. 2.2e-37;
Matches 70; Conservative 0; Mismatches 0;
                             Mismatches
ilarity 100.0%; P:
Conservative 0;
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A;Residues: 1-153 <MUE>
A;Cross-references: EMBL:X52388
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A;Residues: 49-117,'X' <
Best Local Similarity
Matches 70; Conserv
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A Residues: 49-118 cFRA>

A Residues: 49-118 colostrum

C Superfamily: insulin

C Superfamily: insulin

F 1-20/Domain: signal sequence (fragment) #status predicted cSIG>
F 1-20/Domain: propeptide #status predicted cPRO>
F 1-20/Domain: insulin B chain-like #status experimental cDB>
F 1-20/Domain: insulin A chain-like #status experimental cDB>
F 1-118/Domain: insulin A chain-like #status experimental cDB>
F 1-118/Domain: D peptide #status experimental cDB>
F 1-11-118/Domain: carboxyl-terminal propeptide (E peptide) #status predicted cCPR>
F 1-20-100/Disulfide bonds: #status predicted
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Residues: 49-118 «HON»
Francis G.L.; Upton, P.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Francis G.L.; Upton, P.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Jochen J. 251, 95-103, 1988
Francis Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biologic
Reference number: S00465; MUID:88268820; PMID:3390164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Bos primigentus taurus (cattle)
C;Date: 31-Mar-1988 Hasquence revision 28-Apr-1995 #text_change 18-Jun-1999
C;Date: 31-Mar-1988 Hasquence revision 28-Apr-1995 #text_change 18-Jun-1999
C;Accession: S12672; A25623; S00465
R;Fotsis, T.; Murphy, C.; Gannon, F.
Nucleic Acids Res. 18, 676, 1990
A;Title: Nucleotide sequence of the bovine insulin-like growth factor 1 (IGF-1) and its A;Reference number: S12672; MUID:90175014; PMID:2308858
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J. Biol. Chem. 261, 569-575, 1986
A;Title: Insulin-like growth factors I and II in fetal and adult bovine serum. Purificat
A;Reference number: A925885; MUID:86085881; PMID:3941093
                                                                                                                                     CyReywords: alternative splicing; growth factor; plasma
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-48/Domain: signal sequence #status predicted <SIG>
F;22-48/Domain: signal sequence #status predicted <PRO>
F;49-118/Product: insulin-like growth factor I #status experimental <CHB>
F;49-17/Domain: insulin chain B-like #status experimental <CHB>
F;78-89/Domain: insulin chain A-like #status experimental <CHB>
F;11-118/Domain: insulin chain A-like #status experimental <CHB>
F;11-118/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CPRO>
F;54-96,66-109,95-100/Disulfide bonds: #status predicted
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A;Residues: 1-153 -*FOT>
A;Cross-references: EMBL:X15726; NID:g454; PIDN:CAA33746.1; PID:g455
A;Experimental source: liver
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Cross-references: GDB:120081; OMIM:147440
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insulin-like growth factor I precursor, splice form 2 - sheep
C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C:Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 23-Jul-1999
C:Accession: S22878; S07198
R:Dickson, M.C.; Saunders, J.C.; Gilmour, R.S.
D. Mol. Bndocrinol. 6, 17-31, 1991
A;Title: The ovine insulin-like growth factor-I gene: characterization, expression and A;Reference number: S22877; MUID:91197361; PMID:2015053
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;Molecule type: DNA
;Residues: 1-138 <-DIC>
;Residues: 1-138 <-DIC>
;Crosa-references: EMEL:X51358
;Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
ndocrinology 124, 1173-1183, 1589
;Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
;Reference number: S07198; MUID:89136887; PMID:2537174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Title: Dynamic aspects in the expression of the goat insulin-like growth factor. A,Reference number: UC2483; MUID:95201385; PMID:7765981
A,Accession: UC2483
A,Molecule type: mRNA
A,Residues: 1-154 <MIK>
A,Residues: 1-154 <MIK>
A,Cross-references: GB:S11378; DDBJ:D26116; DDBJ:D26117; DDBJ:D26118; DDBJ:D26119
C;Genetics:
                                                                                              49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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C;Superfamily: insulin
C;KeYwords: alternative splicing; growth factor; plasma
C;KeYwords: alternative splicing; growth factor; plasma
F;7-33/Domain: propeptide #status predicted <PRO>
F;34-103/Product: insulin-like growth factor I (active) #status experimental
F;34-62/Domain: insulin chain B-like #status predicted <DOB>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 insulin-like growth factor-I precursor - goat
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 16-Mar-1995 #Bequence_revision 26-May-1995 #text_change 17-Mar-1999
     1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Residues: 34-103 <FRA>
Experimental source: fetal plasma
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C;Superfamily: insulin
P;1-49/Domain: signal sequenc
F;50-119/Product: insulin-lik
P;120-154/Region: B domain
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                                                                                              Insulin-like growth factor I precursor, splice form B [validated] - human "Alternate names: IGF-IB; somatomedin C "Alternate names: IGF-IB; somatomedin C "Sopecies: Insulin-like growth factor IB-E1 amide "Species: Homo sapiens (man) "Evisity of the growth sequence revision 30-Jun-1987 #text_change 31-Dec-2000 "Accession: A0-Jun-1987 #sequence revision 30-Jun-1987 #text_change 31-Dec-2000 "Accession: A01611; A26181; S30540; B48860; A42664 "Rotwein P: Pollock, K.M.; Didier, D.K.; Krivi, G.G. Biol. Chem. 261, 485844832, 1986 "Alter Chem. 261, 485844832, 1986 "Alter Chem. 261, 4858149; MUID:86168194; PMID:2937782
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Wholecule type: mSA2>
Wholecule type: mSA2>
Wholecule type: mSA2>
Whole: asquence modified after extraction from NCBI backbone
Whole: sequence modified after extraction from NCBI backbone
Whole: sequence extracted from NCBI backbone (NCBIN:133058)
Whole: sequence extracted from NCBIN:133058)
Whole: sequence extracted from NCBI backbone (NCBIN:133058)
Whole: sequence extracted from NCBI backbone (NCBIN:133058)
Whole: sequence extracted from NCBIN:130589
Whole: sequ
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*/Arcasaicas GB:MI1558; NID:g183111; PIDN:AAA52539.1; PID:g183112
*/Sandberg Nordqvist, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
*/Sandberg Nordqvist, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
*/Molecule type: mRNA
*/Reference number: S30540
*/Reference number: S30540
*/Residues: 1195 <SAN>
*/Arcasaicas: S30540
*/Arcasaicas S30540
*/Arcasaicas S30540
*/Arcasaicas S3, 2475-2478, 1993
*/Arcasaicas S49560; MUID:93265440; PMID:8495408
*/Arcasaicas S49560; MUID:93265440; PMID:8495408
*/Arcasaicas S49560; MUID:93265440; PMID:8495408
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A.Title: Two insulin-like growth factor I messenger RNAs are expressed in human liver.
A.Reference number: A26181; MUID:86094355; PMID:3455760
A.A.A.Cesesion: A26181
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Attribustion: 1942-1244.1

Attribustion: 1942-1244.1

Attribustion: 1941-134/3

Attribustion: 1
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,Residues: 1-195 <ROT1>
,Cross-references: GB:M14155; NID:g183106; PIDN:AAA52537.1; PID:g183109
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A; Molecule type: mRNA
A; Residues: 27-153 < KAT>
A; Experimental source: liver
B; Murphy, L.J.; Bell, G.I.; Duckworth, M.L.; Friesen, H.G.
B; Mocorinology 121, 684-691, 1987
A; Title: Identification, characterization, and regulation of a rat complementary deoxy
A; Title: Identification, characterization, and regulation of a rat complementary deoxy
A; Reference number: A28504; MUID: 87246437; PMID: 3595538
A; Residues: 46-153 < MUR*
A; Residues: 46-153 < MUR*
A; Residues: GB: MI7714; NID: 9204324; PIDN: AAA41227.1; PID: 9204325
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A; Richerence number: JN0088; MUID: 91136779; PMID: 1368576
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A; Accession: JN0088
A; MO10010 type: mRNA
A; Residues: MSAPP: 72-153 < KAZ>
A; Experimental source: liver
A; Note: the authors present evidence that this mRNA may contain an artifactual inversions of the sulf of the sulf
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A; Residues: 27-153 < CAS>
A; Residues: 27-153 < CAS>
A; Cross-references: GB: M7335; NID: 9204751; PIDN: AA41386.1; PID: 9204752
A; Cross-references: GB: M7335; NID: 920401; T.
A; Kato, H.; Okoshi, A.; Miura, Y.; Nguchi, T.
Agric. Biol. Chem. 54, 1599-1601, 1990
A; Title: A new cDNA clone relating to larger molecular species of rat insulin-like grow A; Reference number: JH0133; MUID: 91103966; PMID: 1368571
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A;Molecule type: protein
A;Residues: 49-118 < TAM>
A;Residues: 49-118 < TAM>
B;Residues: 49-118 < TAM>
B;Residues: 22-27, 1988
Endocrinology 122, 22-27, 1988
A;Title: Isolation and characterization of insulin-like growth factor I (somatomedin-C A;Reference number: A61096; MUID:88082445; PMID:3335205
A;Accession: A61096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: GB:M15651; GB:J02743; NID:g204297; PIDN:AAA41215.1; PID:g204300
R;Casella, S.J.; Smith, E.P.; Van Wyk, J.J.; Joseph, D.R.; Hynes, M.A.; Hoyt, E.C.; Lu
DNA 6, 325-330, 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Title: Isolation of rat testis cDNAs encoding an insulin-like growth factor I precur
A,Reference number: A27849; MUID:88003970; PMID:3652906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         insulin-like growth factor IA precursor - rat
NiAlternate names: IGF-IA; somatomedin C
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Accession: B27804; A27849; JH0133; A28504; JN0088; A32857; A61096
R;Shimatsu, A.; Rotwein, P.
J; Biol. Chem. 262, 7894-7900, 1887
A;Title: Mosaic evolution of the insulin-like growth factors. Organization, sequence, A;Reference enumber: A27804; MUID:8722423; PMID:3034909
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                                                                 1 GPETICGARIVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
    Gabs
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    1; Indels
    0; Mismatches
        69; Conservative
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A, Molecule type: DNA
A, Residues: 1-153 <SHI>
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A; Molecule type: DNA
A; Molecule type: DNA
A; Molecule type: DNA
A; Cross-references: EMBL:X51358
B; Mong, E.A.; Ohlsen, S.M.; Godfredson, J.A.; Dean, D.M.; Wheaton, J.E.
DNA B; 649-657, 1989
A; Title: Cloning of ovine insulin-like growth factor-I cDNAs: heterogeneity in the mRNA
A; Reference number: A33390; MUID:90126234; PMID:2575490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          insulin-like growth factor I precursor, splice form 1 - sheep
N.Alternate names: somatomedin C
C;Species Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Bate: 09-Mar-1990 #sequence_revision 27-Feb-1997 #text_change 23-Uul-1999
C;Accession: 822877; A33390; 807965; 807198
R;Dickson, M.C.; Saunders, J.C.; Gilmour, R.S.
J. Mol. Endocrinol. 6, 17-31, 1991
A;Fitle: The ovine insulin-like growth factor-I gene: characterization, expression and A;Recence number: 822877; MUD:91197361; PMID:2015053
A;Accession: 822877
A;Accession: S22877
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;Superfamily: insulin
;Superfamily: insulin
;Superfamily: insulin
;1-21/Domain: signal sequence #status predicted <BGC>
;1-21/Domain: signal sequence #status predicted <BGC>
;22-49/Domain: propeptide #status predicted <PRO>
;22-49/Domain: propeptide #status predicted <PRO>
;50-119/Product: insulin-like growth factor I (active) #status experimental <MAT>
;50-119/Domain: insulin chain B-like #status predicted <DGO>
;79-90/Domain: insulin chain A-like #status predicted <DGO>
;91-111/Domain: insulin chain A-like #status predicted <DGO>
;112-119/Domain: peptide D #status predicted <CHC>
;112-119/Domain: peptide D #status predicted <CHC>
;112-119/Domain: arboxyl-terminal propeptide (E peptide) #status predicted <CTP>
;25-97,67-110,96-101/Disulfide bonds: #status predicted
    F;63-74/Domain: insulin connecting peptide-like #status predicted <CHC>
F;75-95/Domain: insulin chain A-like #status predicted <DOA>
F;65-103/Domain: peptide D #status predicted <CHD>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F;39-81,51-94,80-85/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                9
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                                                                                                                                                                                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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0
                                                                                                                                                                                                                                97.9%; Score 377; DB 2; Length 138;
llarity 98.6%; Pred. No. 1.7e-36;
Conservative 0; Mismatches 1; Indels
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Pred. No. 1.9e-36;
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98.6%;
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69; Conservat
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Best Local Similarity
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Best Local S:
Matches 69
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NyAlternate names: IGF-LA; somatomedin C
C;Species: Mus musculus (house mouse)
C;Date: 30-Jun-1988 #text_change 16-Jul-1999
C;Accession: A25540; 155295; 159990; B25540
R;Bell, G.I.; Stempien, M.M.; Fong, N.M.; Rall, L.B.
Nucleic Acids Res. 14, 7873-7882, 1986
A;Title: Sequences of liver cDNAs encoding two different mouse insulin-like growth fact A;Reference number: A93643; MuID:87040760; PMID:3774549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1-127 <br/>
B;Residues: 1-127 <br/>
A;Residues: 264, 13810-13817, 1989<br/>
A;Tollefsenn, 2.E.; Lajara, R.; McCusker, R.H.; Clemmons, D.R.; Rotwein, P.
J. Biol. Chem. 264, 13810-13817, 1989<br/>
A;Tollefsennianian: 155295, MUID:89340472; PMID:474537<br/>
A;Reference number: 155295, MUID:89340472; PMID:474537<br/>
A;Reference type: DNA<br/>
A;Residues: 49-108 <br/>
A;Residues: 50-108 <br/>
A;Residues: 50-108 <br/>
A;Residues: 50-108 <br/>
A;Residues: 60-108 <br/>
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S;Superframily: insulin
C;Keywords: alternative splicing; growth factor
C;Keywords: alternative splicing; growth factor
E;1-22/Domain: signal sequence #status predicted <SIG>
E;1-22/Domain: insulin-like growth factor IA (active) #status predicted <MAT>
F;23-51/Domain: insulin chain B-like #status predicted <DOB>
F;52-63/Domain: insulin connecting C peptide-like #status predicted <DOC>
F;64-84/Domain: insulin chain A-like #status predicted <DOS>
F;64-32/Domain: Deptide #status predicted <DOD>
F;85-22/Domain: Carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
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A,Molecule type: DRA
A,Residues: 49-108 «RE2>
A;Cross-references: GB:M14983; NID:g194495; PIDN:AAA37925.1; PID:g194496
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                                                                Length 181;
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                                                                                                                                            Indels
                                                                Score 368; DB 2; L pred. No. 2.5e-35; 0; Mismatches 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insulin-like growth factor IA precursor
                                                                    Query Match
Best Local Similarity 95.7%;
Matches 67; Conservative
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Matches 66; Conservative
C; Keywords: alternative splicing
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A;Residues: 1-159 <SHI>
A;Cross-references: GB:X06107; GB:M32260; GB:Y00429; NID:g56424; FIDN:CAA29480.1; PID:g5
C;Superfamily: insulin
C;Keywords: alternative splicing; growth factor
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C;Species: Rattus norvegicus (Norway rat)
C;Species: 09-Jun-1988 #sequence_revision 09-Jun-1988 #text_change 16-Jul-1999
C;Accession: A27804; 165202
R;Shimatsu, A.; Rotwein, P.
T, Shimatsu, A.; Rotwein, P.
A;Title: Mosaic cvolution of the insulin-like growth factors. Organization, sequence, A;Reference number: A27804; MUID:87222423; PMID:3034909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insulin-like growth factor IB precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Dacession: A888 #sequence_revision 19-Nov-1988 #text_change 16-Jul-1999
C;Accession: A86859
R;Shimatsu, A.; Rotwein, P.
Nucleic Acids Res. 15, 7196, 1987
A;Title: Sequence of two rat insulin-like growth factor I mRNAs differing within the A;Reference number: A26859, MUID:88015572; PMID:3658684
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A;Molecule type: DNA
A;Readidues: 1-181 <SHI>>
A;Cross-references: GB:M15650; GB:J02743; NID:g204296; PIDN:AAA41214.1; PID:g204299
R;Roberts, C.T.
Biochem. Biophys. Res. Commun. 146, 1154-1159, 1987
A;Title: Rat IGF-I CDNA's contain multiple 5'-untranslated regions.
A;Reference number: 152218; MUID:87288553; PMID:3619921
A;Accession: 165202
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                                                                                                                                                                                                                                                                        Gaps
                                    C;Superfamily: insulin
C;Keywords: alternative splicing; growth factor
F;49-118/Product: insulin-like growth factor I #status experimental <ILG>
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A;Molecule type: mRNA
A;Residues: 1-27 args>
A;Cross-references: GB:M17594; NID:g204759; PIDN:AAA41390.1; PID:g204760
C;Superfamily: insulin
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                                                                                                                                                                                Score 368; DB 2; Length 153
Pred. No. 2.1e-35;
0; Mismatches 3; Indels
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Pred. No. 2.2e-35;
0; Mismatches 3; Indels
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Best Local Similarity 95.7%;
Matches 67; Conservative
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1 Similarity 95.7%;
67; Conservative
        A; Residues: 49-53,'X',55-65 < CAN>
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Best Local Similarity
Matches 67; Conserv
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insulin-like growth factor I'' precursor - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Dates 30.Nov-1990 #sequence_revision 30-Nov-1990 #text_change 16-Jul-1999
C;Accession: A36079; B34049
R;Kajimoto, Y.; Rotwein, P.
Mol. Endocrinol, 4, 217-226, 1990
Mol. Endocrinol, 4, 217-226, 1940
A;Title: Evolution of insulin-like growth factor I (IGF-I): structure and expression of A;Reference number: A36079; MUID:90231335; PMID:2330002
A,Residues: 1.153 «KAJ»
A,Cross-references: GB:M32791; NID:g211950; PIDN:AAA48828.1; PID:g211951
A,Cross-references: GB:M32791; NID:g211950; PIDN:AAA48828.1; PID:g211951
B,Fsweett, D.H.; Bullfald, G.
J. Mol. Endocrinol. 4, 201–211, 1990
A,Title: Molecular cloning, sequence analysis and expression of putative chicken insuli A,Reference number: A61092; MUID:90334699; PMID:2378674
A,Accession: A61092
A,Status: not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-21 eXADA
A; Residues: GB: M74176; NID: g211952; PIDN: AAA48829.1; PID: g211953
B; Dawe, S.R.; Francis, G.L.; Monamara, P.J.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 117, 173-181, 1988
A; Title: Purification; partial sequences and properties of chicken insulin-like growth A; Reference number: A60853; MUID: 88244560; PMID: 3379351
A; Accession: B06853
A; Molecule type: protein
A; Residues: 49-79 eDMA
B; Pallard, P.J.; Johnson, R.J.; Owens, P.C.; Francis, G.L.; Upton, F.M.; McMurtry, J.P.
Gen. Comp. Endocrinol. 79, 459-468, 1990
A; Title: Chicken insulin-like growth factor-I: amino acid sequence, radioimmunoassay, a A; Reference number: A37415; MUID: 91106695; PMID: 2272467
                                                                                                                                                                                                                                                                                                                    A;Residues: 1-153 «FAW»
R;Kajimoto, Y.; Rotwein, P.
J. Biol. Chem. 266, 9724-9731, 1991
A;Title: Structure of the chicken insulin-like growth factor I gene reveals conserved A;Reference number: A40012; MUID:91236750; PMID:2033062
A;Accession: A40012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cikeywords: growth factor

#49-77,00110/Product: insulin-like growth factor IA #status experimental <MAT>

F149-77/Domain: insulin-like growth factor IA B chain #status predicted <CHB>

F178-89/Domain: insulin connecting C peptide-like #status experimental <CPE>

F3-01-10/Domain: insulin like growth factor IA A chain #status experimental <CHA>

F111-118/Domain: D peptide #status experimental <MAA>

F119-153/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
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A;Cross-references: GB:M29857; NID:g214287; PIDN:AAA70330.1; PID:g214288
R;Shuldiner, A.R.; Nirula, A.; Scott, L.A.; Roth, J.
Biochem. Biophys. Res. Commun. 166, 223-230, 1990
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88.6%; Pred. No. 1.3e-32;
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A;Molecule type: protein
A;Residues: 49-118 <BAL>
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Best Local Similarity
Matches 62; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: A36079
A; Molecule type: mRNA
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                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
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                                                                                                                                                                 Cjaccession: B40912
R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; LeRoith, D.
Ajl: Endocrinol. 1, 243-248, 1987
AjTitle: Molecular cloning of rat insulin-like growth factor I complementary deoxyribonu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: A40912
R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; LeRoith, D.
Ajl: Endocrinol. 1, 243-248, 1987
A;Title: Molecular cloning of rat insulin-like growth factor I complementary deoxyribonu
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C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Date: 03-Apr-1992 #sequence_revision 03-Apr-1992 #text_change 16-Jul-1999
C;Accession: A41399; A61092; A40012; B60853; A37415
R;Kajimoto, Y.; Rotwein, P.
Mol. Endocrinol. 3, 1907-1913, 1989
A;Title: Structure and expression of a chicken insulin-like growth factor I precursor.
A;Reference number: A41399; MUID:90190648; PMID:2628728
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         insulin-like growth factor I precursor form 1 - rat
C,Species: Rattus norvegicus (Norway rat)
C,Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999
                                                        insulin-like growth factor I precursor form 2 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999
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A,Molecule type: mRWA
A,Residues: 1-133 <ROB>
A,FResidues: 1-133 <ROB>
A;Cross-references: GB:MIS480; NID:g204749; PIDN:AAA41385.1; PID:g204750
C,Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residudes: 1-127 <ROB>
A;Cross-references: GB:M15481; NID:g204753; PIDN:AAA41387.1; PID:g204754
C;Superfamily: insulin
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Pred. No. 2.1e-33;
0; Mismatches 6; Indels
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Pred. No. 2.2e-33;
0; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                           A, Reference number: A40912; MUID:88288198; PMID:3453891
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Reference number: A40912; MUID:88288198; PMID:3453891
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l Similarity 91.4%;
64; Conservative
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Best Local Similarity 91.4%;
Matches 64; Conservative
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Best Local Similarity
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insulin-like growth factor I precursor, splice form 2 - coho salmon

% Contains: insulin-like growth factor I, splice form 1

% Contains: insulin-like growth factor I, splice form 1

% Contains: insulin-like growth factor I, splice form 1

% Contains: insulin-like growth factor I, splice form 1

% Date: 03-Apr-1992 # Bequence revision 03-Apr-1992 # text_change 21-Jul-2000

% Date: 03-Apr-1992 # Bequence revision 03-Apr-1992 # text_change 21-Jul-2000

% P. Puguay, S.J.; Plisetskaya, E.; Steiner, D.F.; Chan, S.J.

Mol. Endocrinol. 3, 2005-2010, 1989

Mol. Endocrinol. 3, 2005-2010, 1989
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R;Wallis, A.E.; Devlin, R.H.
Mol. Endocrinol. 7, 409-422, 1993
A;Ettel Duplicate insulin-like growth factor-I genee in salmon display alternative spl A;Eterence number: A54270; MUID:93247592; PMID:7683374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-161 < WAL>
A;Residues: 1-161 < WAL>
A;Coss-references: GB:U15961; GB:S59514; NID:g559008; PIDN:AAA67267.1; PID:g559009
A;Note: sequence extracted from NCBI backbone (NCBIN:130889, NCBIP:130893)
C;Superfamily: insulin
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A Modecule type: mRMA
A; Modecule type: mRMA
A; Meesidues: 1.176 < CAD>
A; Cross-references: GB:M32792; NID:g213431; PIDN:AAA49410.1; PID:g213432
A; Cross-references: GB:M32792; NID:g213431; PIDN:AAA49410.1; PID:g213432
A; Cross-references: GB:M32792; NID:g213431; PIDN:AAA49410.1; PID:g213432
B; Koval, A.; Rulik, V.; Duguay, S.; Plisetskaya, E.; Adamo, M.L.; Roberts, C.T.
DNA Cell Biol. 13, 1057-1062, 1994
A; Title: Characterization of a salmon insulin-like growth factor I promoter.
A; Reference number: IS1255; MUID:95032736; PMID:7945938
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                                                                                                                                                                                                                                                                                             19 GPBTLCGAELVDTLQFVCGERGFYFSKPTGYGPSSRRSHNRGIVDECCFOSCELRRLEMY 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Oncorhynchus tschawytscha (chinook salmon)
C;Date: 13-Sep_1994 #sequence_revision 25-Apr-1997 #text_change 16-Jul-1999
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A;Residuss: 1-5,7°,7-16 <KOV>
A;Cross-references: GB:S74130; NID:g707007; PIDN:AAD14148.1; PID:g4261848
R;Duguay, S.J.; Park, L.K.; Samadpour, M.; Dickhoff, W.W.
                                                                                                                Length 155;
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                                                                                                         82.6%; Score 318; DB 2; I
larity 80.0%; Pred. No. 1.3e-29;
Conservative 7; Mismatches 7;
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   C; Superfamily: insulin
C; Keywords: growth factor
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                                                                                                         Query Match
Best Local Similarity
Matches 56; Conserv
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A,Title: Evidence that Xenopus laevis contains two different nonallelic insulin-like grd
A,Reference number: A90158; MUID:90147704; PMID:2302204
A,Accession: B34049
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Nicontains: insulin-like growth factor I, splice form 1; insulin-like growth factor I,
Species: Oncorbynchus kisutch (coho salmon)
C;Bate: 27-Apr-1993 #sequence revision 27-Apr-1993 #text_change 16-Jul-1999
C;Accession: C44012; A44012; B44012; B44012; B44012; M.; Dickhoff, W.W.
Mol. Endocrinol. 6, 1202-1210, 1992
My Title: Nucleotide sequence and tissue distribution of three insulin-like growth factor
A;Reference number: A44012; MUID:93024477; PMID:1406698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: D54270
R;Wallia, A.E.; Devlin, R.H.
R;Wallia, A.E.; Devlin, R.H.
A;Title: Duplicate insulin-like growth factor-I genes in salmon display alternative spli
A;Reference number: A54270; MUID:93247592; PMID:7683374
A;Status: preliminary
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A,Residues: 1-149 <WAL>
A,Cross-references: GB:U15962, GB:S59515, NID:G559010, PIDN:AAA67268.1, PID:G559011
A,NOte: sequence extracted from NCBI backbone (NCBIN:130890, NCBIP:130894)
C;Superfamily: insulin
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Species: Oncorhynchus tschawytscha (chinook salmon)
Date: 13-Sep-1994 #sequence_revision 25-Apr-1997 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                         Score 334; DB 2;
Pred. No. 1.8e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                         5; Mismatches
                                                                                                     A,Molecule type: DNA
A,Residues: 82-85,'A',87-125 <5H2>
Genetics: 1GF-I',
A,Gene: 1GF-I',
C,Superfamily: insulin
C,Keywords: growth factor
                                                                                                                                                                                                                                                                                                                                                     sh 86.8%;
L Similarity 84.3%;
59; Conservative
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Best Local Similarity 80.0%
Marches 56; Conservative
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Best Local Similarity
Matches 59; Conserv
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A;Residues: 1-155 <DUG>
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A;Title: Duplicate insulin-like growth factor-I genes in salmon display alternative spl A;Reference number: A54270; MUID:93247592; PMID:7683374
A;Accession: A54270
A;Molecule type: mENA
A;Redues: L-188 <-MAL>
A;Redues: L-188 <-MAL>
A;Note: sequence extracted from NCBI backbone (NCBIN:130887, NCBIP:130891)
C;Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Oncorhynchus tschawytscha (chinook salmon)
C;Date: 13-Sep-1994 #sequence_revision 25-Apr-1997 #text_change 30-May-1997
C;Accession: B54270
R;Wallis, A.E.; Devlin, R.H.
Mol. Endocrinol. 7, 409-422, 1993
A;Title: Duplicate insulin-like growth factor-I genes in salmon display alternative spl A;Recence number: A54270; MuID:93247592; PMID:7683374
A;Recession: B54270
A;Status: preliminary
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F:1-24/Domain: signal sequence #status predicted <SIG>
F:1-24/Domain: signal sequence #status predicted <MAT>
F:25-126/Product: insulin-like growth factor I #status predicted <MAT>
F:25-53/Domain: insulin-like growth factor I chain B #status predicted <CHB>
F:54-64/Domain: insulin connecting peptide C-like #status predicted <CPB>
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C,Species: Squalus acanthias (spiny dogfish)
C,Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               insulin-like growth factor-I precursor (clone OtIGFI-117B) - chinook salmon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Species: Oncorhynchus tschawytscha (chinook salmon)
;Date: 13-Sep-1994 #sequence_revision 25-Apr-1997 #text_change 30-May-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Note: sequence extracted from NCBI backbone (NCBIN:130888, NCBIP:130892)
C;Superfamily: insulin
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R;Duguay, S.J.; Chan, S.J.; Mommsen, T.P.; Steiner, D.F.
FBSS Lett. 311, 69-72, 1995
A;Title: Divergence of insulin-like growth factors I and II in A;Reference number: S66484; MUID:95394151; PMID:7545136
                                                                                                                                                                                                                                                                            y Match 82.6%; Score 318; DB 2; Length 18 Local Similarity 80.0%; Pred. No. 1.6e-29; nes 56; Conservative 7; Mismatches 7; Indels
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80.0%; Pred. No. 1.6e-29;
ive 7; Mismatches 7; Indels
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Best Local Similarity 80.0
Matches 56; Conservative
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A; Regidues: 1-188 < WAL>
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A;Molecule type: mRNA
A;Residues: 1-126 <DUG>
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                                  A;Title: Nucleotide sequence and tissue distribution of three insulin-like growth factor
A;Reference number: A44012; MUID:93024477; PMID:1406698
A;Accession: A44012
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R;Shamblott, M.J.; Chen, T.T.
Proc. Natl. Acad. Sci. U.S.A. 89, 8913-8917, 1992
A;Title: Identification of a second insulin-like growth factor in a fish species. A;Reference number: A46244; MUID:93028377; PMID:1409585
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C;Date: 13-Sep-1994 #sequence_revision 25-Apr-1997 #text_change 30-May-1997
C;Accession: A54270
C;Accession: A54270
Mol. Bridalis, A.E.; Devlin, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           insulin-like growth factor I precursor - rainbow trout
C/Species: Oncorhynchus mykiss (rainbow trout)
C/Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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C,Superfamily: insulin
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                                                                                                                    A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA.
A;Residues: 27-130,158-169 <DUG>
A;Residues: 27-130,158-169 <DUG>
A;Cross-references: GB:M81911; NID:g213438; PIDN:AAB59947.1; PID:g213439
A;Note: sequence extracted from NCBI backbone (NCBIP:115183)
A;Accession: B44012
                                                                                                                                                                                                                                                                                                  A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA A;Residues: 27-169 <DU2>
A;Residues: 27-169 <DU2>
A;Cross-references: GB:M81912; NID:g213440; PIDN:AABS9948.1; PID:g213441 A;Note: sequence extracted from NCBI backbone (NCBIP:115182) C;Genetics:
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A;Molecule type: nucleic acid
A;Residues: 1-176 <SHA>
A;Cross-references: GB:M95183; NID:g213435; PIDN:AAA49412.1; PID:g213436
A;Experimental source: liver
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Pred. No. 1.5e-29;
7; Mismatches 7; Indels
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Pred. No. 1.5e-29;
7; Mismatches 7
                  Endocrinol. 6, 1202-1210, 1992
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1 Similarity 80.0%;
56; Conservative 7
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Best Local Similarity 80.0%;
Matches 56; Conservative 7
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105 CAPVKSGKAA 114
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C;Superfamily: insulin
C;Keywords: growth factor
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Best Local Similarity
Matches 56; Conserv
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Riceinovitt, A.; Norstedt, G.; van den Berg, S.; Robinson, I.C.; Ekstrom, T.J.
Mol. Cell. Endocariol. 189, 105-110, 1992
A;Title: Isolation of an insulin-like growth factor II cDNA from guinea pig liver: expre A;Reference number: 157671, MUID: 93246007; PMID: 1301379
A;Accession: 157671
A;Accession: 157671
A;Molecule type: mRNA
A;Residues: 1-128 cRES>
A;Cross-references: GB:S59899; NID: 9300070; PIDN: AAB26479.1; PID: 9300071
C;Superfamily: insulin
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     44 GPYTLCRAELVDSLQFVCGQRGFYFSRPMGYGSSTCWTHNRGILDKCCFQSCQLRWIEMY 103
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Cyspecies Cavia porcellus (guinea pig)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 16-Jul-1999
C;Accession: IS7671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
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|04 CAAFEPS 110
                                                           61 CAPLKPA 67
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Sispecies: Clarias macrocephalus (Siamese catfish)
Sibacies: Ol-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 19-May-2000
Sibacession: A53697
SiMCROTY, J.E.; Sherwood, N.M.
T. Biol. Chem. 269, 18589-18982, 1994
A;Title: Catfish express two forms of insulin-like growth factor-I (IGF-I) in the brain.
A;Reference number: A53697; MUD:94308098; PMID:7913463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: B46244
R;Shamblott, M.J.; Chen, T.T.
R;Shamblott, M.J.; Chen, T.T.
Aritle: Natl. Acad. Sci. U.S.A. 89, 8913-8917, 1992
A;Title: Identification of a second insulin-like growth factor in a fish species.
A;Reference number: A46244; MUID:93028377; PMID:1409585
A;Accession: B46244
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                                                                                                                                                                                                                                                                         26 PETLCGAELVDALQFVCGDRGFYFNKPAGYRSSVRR-PHRGIVNECCFQSCDLKLLEMYC 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA 62
                                                                                                                                                                                                                                          2 PETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYC 61
F;65-85/Domain: insulin-like growth factor I chain A #status predicted <CHA>
F;95-126/Region: domain E
F;30-71,42-84,70-75/Disulfide bonds: #status predicted
F;113/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insulin-like growth factor II precursor - rainbow trout
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A Status: preliminary
A Molecule type: nucleic acid
A; Molecule type: sequence extracted from NCBI backbone (NCBIN:115351, NCBIP:115353)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Gaps
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                                                                                                                                  Query Match 72.3%; Score 278.5; DB 2; Length Best Local Similarity 77.9%; Pred. No. 4.1e-25; Matches 53; Conservative 5; Mismatches 7; Indels
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\(\text{S}\); Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                                         62 APLKPAKS 69
                                                                                                                                                                                                                                                                                                                                                                                                         A--KPORA 90
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1,Molecule type: mRNA
1,Residues: 1-193 <MCR>
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C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1988 #sequence_revision 22-Apr-1995 #text_change 23-Mar-2001
C;Date: 31-Mar-1988 #sequence_revision 22-Apr-1995 #text_change 23-Mar-2001
C;Accession: 510983; S37617; B25623; A34645; S00466; A57470
R;Brown, W.M.; Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 18, 4614, 1990
A;Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor A;Reference number: S10983; MUID:90356421; PMID:2388846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            insulin-like growth factor II precursor - chicken
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
C;Accession: T10897
R;Darling, D.C.; Brickell, P.M.
Gen. Comp. Endocrinol. 102, 283-287, 1996
A;Title: Nucleotide sequence and genomic structure of the chicken insulin-like growth A;Reference number: Z17205, MJID:96397665; PMID:8804558
A;Accession: T10897
                                                                                                                                                                                                                                                                                                                                                                                            C;Ke_words: alternative splicing; angiogenesis; growth factor; monomer P:124/Domain: signal sequence #status predicted <SIG> P:12-91/Product: insulin-like growth factor II #status experimental <MAT> P:25-91/Product: insulin-like growth factor II #status experimental <MAT> P:92-180/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP> P:33-71,45-84,70-75/Disulfide bonds: #status experimental
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30 ETLCGGELVDTLQFVCGDRGFYFSRPA--SRVSRRS--RGIVEBCCFRSCDLALLETYCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 ETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
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                                                                                                                                                                             A;Cross-references: GB:M22373; NID:g183100; PIDN:AAA52536.1; PID:g553303
C;Genetics:
A;Gene: GDB:IGF2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 57.9%; Score 223; DB 1; Length 180; Best Local Similarity 68.7%; Pred. No. 1.6e-18; Matches 46; Conservative 4; Mismatches 11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14; Indels
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Pred. No. 1.9e-18;
4; Mismatches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     insulin-like growth factor II precursor - bovine N; Alternate names: IGF-II
                                                                                                                                                                                                                                                                                      A;Cross-references: GDB:119331; OMIM:147470
A;Map position: 11p15.5-11p15.5
C;Superfamily: insulin
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C, Keywords: angiogenesis; growth factor
                                                                               A;Status: translated from GB/EMBL/DDBJ
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Best Local Similarity
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                                                                                                                 A; Molecule type: DNA
A; Residues: 1-52 < RE2>
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A; Residues: 1-180 <SHE>
A; Cross-references: GB:J03242; NID:g183123; PIDN:AAA52545.1; PID:g183124
R; Hagiwara, K.; Kobayashi, T.; Tobita, M.; Kikyo, N.; Yazaki, Y.; Okabe, T.
Jpn. J. Cancer Res. 86, 202-207, 1995
A; Title: Isolation of a cDNA for a growth factor of vascular endothelial cells from huma
A; Reference number: I56957; MUID:95247546; PMID:7730145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ,Title: Structure and activity dependence of recombinant human insulin-like growth fact
,Reference number: A33845; MUID:89255428; PMID:2722836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rowth Factors 2, 267-271, 1990
Title: A simple and efficient scheme for the purification of insulin-like growth facto
Reference number: A61037, MUID:90248152, PMID:2337472
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A;Reference number: IS2978; MUID:88003966; PMID:3652904
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A; Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth A; Reference number: IS3458; MUID:85102019; PMID:3881277
A; Accession: IS3458
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-180 cRES>
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A;Molecule type: mRNA
A;Residues: 1-2,'M', 4-180 <RE3>
A;Residues: 1-2,'M', 4-180 <RE3>
A;Cross-references: GB:M29645; NID:g183121; PIDN:AAA52544.1; PID:g183122
R;Gray, A.; Tam, A.W.; Dull, T.J.; Hayflick, J.; Pintar, J.; Cavenee, W.K.; Koufos, A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: protein
A;Residues: 25-91 <RIN>
R;Karey, K.P.; Marquardt, H.; Sirbasku, D.A.
Blood 74. 1084-1092, 1989
A;Title: Human platelet-derived mitogens. Identification of insulinlike growth factors
A;Reference number: A60483; MUID:89323462; PMID:2752153
                                                                                                                                                                                                                                                                                                                                                                                        A;CCSB-references: GB:S77035; NID:g914191; PIDN:AAB34155.1; PID:g914192
A;Experimental source: lung cancer cell line T3M-11
R;Bell, G.I.; Merryweather, J.P.; Sanchez-Pescador, R.; Stempien, M.M.; Priestley, L.; Nature 310, 775-777, 1984
A;Title: Sequence of a cDNA clone encoding human preproinsulin-like growth factor II.
A;Reference number: A93338; MUID:84295592; PMID:6382021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: GB:X00910; GB:M17862; NID:g32995; PIDN:CAA25426.1; PID:g32996 R;Rinderknecht, E.; Humbel, R.E. Ests Lett. 89, 233-286, 1978
A;Title: Primary structure of human insulin-like growth factor II.
A;Reference number: A91448; MUID:78191259; PMID:658418
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A;Residues: 25-32, 'X', 34-44 <KAR>
A;Experimental source: platelet lysate
R;Smith, M.C.; Cook, J.A.; Furman, T.C.; Occolowitz, J.L.
J. Biol. Chem. 264, 9314-9321, 1989
                                                                                                                                                                                                                                                                                      A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-180 <HAG>
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A; Residues: 25-32 < MOH>
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A, Residues: 1-180 <BEL>
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A,Molecule type: protein
A,Reddude: 25-58 cHEP.
A,Reddude: 25-58 cHEP.
R,Demmer, J.; Hill, D.F.; Petersen, G.B.
Biochim. Biophys. Acta 1173, 79-80, 1993
A,Title: Characterization of two sheep insulin-like growth factor II cDNAs with differe A,Reference number: 832557; MUID:93250051; PMID:8485157
A,Accession: 832557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMB:X55638; NID:g1266; PIDN:CAA39163.1; PID:g1267
R;Hey, A.W.; Browne, C.A.; Simpson, R.J.; Thorburn, G.D.
Blochlin: Blochlys. Acts 997, 27-35, 198
Blochlin: Blochlys. Acts 1897, 27-35, 198
A;Title: Simultaneous isolation of insulin-like growth factors I and II from adult shee A;Reference number: S04972; MUID:8932315; PMID:2752053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: mRNA A;Residues: 1-120 <DE2. A A;Residues: 1-120 <DE2. A A;Cross-references: BMB:M89789; NID:g165942; PIDN:AAA31549.1; PID:g552424 A;Cross-references: BMB:M89789; NID:g165942; PiDN:AAA31549.1; PID:g552424 A;Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1992 R;Straczek, J; Heulin, M.H.; Chenut, A.M.; Belleville, F.; Nabet, P.; Denoroy, L.; Bar J. Chromatogr. 533, 35-46, 1990
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A; Residues: 25-32, X', 34-44, X', 46-55, X', 57, X', 59-60 <STR>
A; Residues: 25-32, X', 34-44, X', 46-55, X', 57, Y', 59-60 <STR>
A; Experimental source: fetal serum
B; Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
Endocrinology 124, 1173-1183, 1989
A; Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
A; Accession: S08567
                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:X15248; NID:g1802; PIDN:CAA33324.1; PID:g1803
R;Brown, W.M.; Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nuclaic Acids Res. 18, 4614, 1990
Nylitle: The nuclectide and deduced amino acid sequences of insulin-like growth factor A;Reference number: S10983; MUID:90356421; PMID:2388846
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A;Residues: 1.179 <DEM>
A;Cross.references: EMBL:M89788; NID:g165940; PIDN:AAA31548.1; PID:g165941
A;Cross.references: EMBL:M89788; NID:g165940; PIDN:AAA31548.1; PID:g165941
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1992
A;Accession: S32558
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A,Residues: 25-45,'DG',48-91 <FRA>
A,Residues: 25-45,'DG',48-91 <FRASA
C,Superfamily: insulin
C,Reywords: growth factor; plasma
C,Reywords: growth factor II #status experimental <MAI>
F,25-52/Domain: insulin chain B-like #status predicted <DGB>
F,25-52/Domain: insulin chain A-like #status predicted <DGA>
F,65-85/Domain: insulin chain A-like #status predicted <DGA>
F,65-89/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CRD>
R;O'Mahoney, J.V.; Adams, T.E.
Mucleic Acids Res. 17, 5392, 1989
A;Title: Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.
A;Reference number: S04858; MUID:89345107; PMID:2762134
A;Accession: S04858.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-179 <BRO>
A;Cross-references: EMBL:X53554; NID:g1262; PIDN:CAA37621.1; PID:g1263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RiOhlsen, S.M.; Wong, B.A. submitted to the EMBL Data Library, September 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: $20731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-179 <OHL>
                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-179 < OMA>
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                                                                                                                                 A,CYCOSB-references: EMBL:X53553; NID:g459; PIDN:CAA37620.1; PID:g1364191
A,Experimental source: liver
R,Congote, L.F.; Mazza, L.; Palfree, R.G.E.
Comp. Blochem. Physiol. B 103, 127-131, 1992
A,Title: Nuclectide sequence of the central coding region of bovine erythrotropin/insulitime of hepatic erythropoiesis.
A,Reference number: S37617; MUID:93083057; PMID:1280544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Wolecule type: protein
A; Redidues: 1-34, SG, 38-67, AHON>
A; Redidues: 1-34, SG, 38-67, F.; Congote, L.F.
Biochem. Blacher, R.; Esc. Commun. 166, 557-561, 1990
A;Title: A heparin-binding erythroid cell stimulating factor from fetal bovine serum has A;Teference number: A34645; WUID:90147754; PMID:2302223
A; Accession: A34645
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A;Residues: 1-67 <FRA>
R;Valenzano, K.J.; Remmler, J.; Lobel, P.
Biol. Chem. 270, 16441-16448, 1995
A;Title: Soluble insulin-like growth factor II/mannose 6-phosphate receptor carries mult
A;Reference number: A57470; MUID:95332360; PMID:7608216
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A;Molecule type: protein
C;Superfamily: insulin
C;Superfamily: insulin
C;Keywords: colostrum; growth factor; latetus experimental comercing: product: insulin-like growth factor II #status experimental comercing: promedin: insulin B chain-like #status experimental comercing: properimental comercing:
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A,Robidues: 1-8, X', 10-20, X', 22-31 <LIQ>
A,Residues: 1-8, X', 10-20, X', 22-31 <LIQ>
A,Residues: 1-8, X', 10-10, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Biochem. J. 251, 95-103, 1988
Biochem. J. 251, 95-103, 1988
A,Title: Insulfar-like growth factors 1 and 2 in bovine colostrum. Sequen A,Reference number: $800465; MUID:88268820; PMID:3390164
A,Accession: $800466
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Les 45; Conservative
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     A;Accession: S10983
A;Molecule type: mRNA
A;Residues: 6-155 <BR2>
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F;33-71,45-84,70-75/Disulfide bonds: #status predicted

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Cyacession: ISS62
Ryotte, K., Engstrom, W.
Ryotte, Endocrinol. 96, 270-275, 1994
A,Title: Insulin-like growth factor II in the horse: determination of a cDNA nucleotid A,Reference number: ISS642, MUID:95154655; PMID:7851727
A,Reference number: ISS642, MUID:95154655; PMID:7851727
A,Status: preliminary; translated from GB/EMBL/DDBJ
A,Robeldues: I-93 <OTT>
A,Robeldues: I-93 <OTT>
C,Genetics:
C,Gene
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C;Species: Sus scrofa domestica (domestic pig)
C;Species: Sus scrofa domestica (domestic pig)
C;Accession: Siz614; B60738
R;Catchpole, I.R.; Engstroem, W.
Nucleic Acids Res. 18, 6430, 1990
A;Title: Nucleotide sequence of a porcine insuliability growth factor II cDNA.
A;Title: Nucleotide sequence of a porcine insuliability growth factor II cDNA.
A;Reference number: Siz614; MUID:91057136; PMID:2243790
A;Recession: Siz64
A;Molecule type: mRNA
A;Molecule type: GNA
R;Residues: 1-181 cCAT>
R;Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J;Endocrinol. 122, 681-687, 1989
A;Title: Purification, amino acid sequences and assay cross-reactivities of porcine in A;Reference number: A60738; MUID:90039035; PMID:2809477
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A;Molecule type: protein
A;Rolecule type: protein
A;Rolecule type: protein
C;Superfamily: insulin:
F;1-24/Domain: signal sequence #status predicted <SIG>
F;12-24/Domain: signal sequence forwith factor II #status experimental <MAT>
F;25-91/Product: insulin-like growth factor II #status experimental <MAT>
F;32-181/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F;32-71,45-84,70-75/Disulfide bonds: #status predicted
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                                                                                                                                             C;Species: Equus caballus (domestic horse)
C;Date: 15-Oct-1996 #sequence_revision 15-Oct-1996 #text_change 16-Jul-1999
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Best Local Similarity 67.2%; Pred. No. 3.5e-18;
Matches 45; Conservative 5; Mismatches 11; Indels
                                                                                                   horse (fragment)
                                                                                                        insulin-like growth factor II precursor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --TPAKS 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63 PLKPAKS 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --TPAKS 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 45; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Gene: IGF-II
C;Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 36
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A; Actaus: preliminary
A; Molecule type: DNA
A; Residues: 1-52 (HO2)
B; Cleutiens, P.E.; Cleutiens, C.B.; Veenstra, G.J.; Van der Lee, F.M.; Koonen-Reemst, A; Regul. Pept. 48, 77-89, 1993
A; Rittle: Differential expression of the human, mouse and rat IGF-II genes.
A; Reference number: 148463; MUD: 94089965; PMID: 8265819
A; Reference number: I48463; MUD: 94089965; PMID: 8265819
A; Residues: 1-52 (RES)
A; Residues: 1-52 (RES)
A; Residues: 1-52 (RES)
A; Residues: DNA
A; Residues: DNA
A; Residues: DNA
A; Residues: DNB
A; Resi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;Molecule type: mRNA
;Residues: 1-180 cSTE>
;Cross-references: GB:M14951; GB:J04069; GB:M20682; NID:g193484; PIDN:AAA37683.1; PID:g
;Accession: S35874
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title: Sequence of a placental cDNA encoding the mouse insulin-like growth factor. Reference number: A24913; WUID:87053171; PMID:3780370; Accession: A24913
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                                                                                                                                                                                                                                                                30 ETLCGGELVDTLQFVCGDRGFYFSRP----SRINRRSRGIVESCCFRSCDLALLETYCA 85
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       insulin-like growth factor II precursor - mouse C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 07-Mar-1988 #sequence revision 07-Mar-1988 #text change 16-Jul-1999 C;Accession A24913; S35874; I48463; I48464; I59137; S35875 Mistempien, M.M.; Fong, N.M.; Rall, L.B.; Bell, G.I. S357-361, 1986
                                                                                                                                                                                                 3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27 GPGETLCGGELVDTLQFVCSDRGFYFSRP----SSRANRRSRGIVEECCFRSCDLALLET
                                                                                                        6; Gaps
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A;Status: preliminary; translated from GB/EWBL/DDBJ
A;Nolecule type: DNA
A;Nolecule type: DNA
A;Residues: 1-52 cRB2>
A;Cross-references: GB:M24633; NID:g341211; PIDN:AAA37923.1; PID:g553943
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          DB 2; Length 179; -
     Score 222; DB 2; Length 17;
Pred. No. 2e-18;
3; Mismatches 13; Indels
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Pred. No. 3.1e-18;
3; Mismatches 14;
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65.7%;
Query Match
Best Local Similarity 67.2%;
Matches 45; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                  63 PLKPAKS 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86 -- APAKS 90
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Best Local S:
Matches 46
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Mol. Endocrinol. 2, 1115-1126, 1988
A;Itle: Structure of the rat insulin-like growth factor II transcriptional unit: Heter ribonuclea acid splicing.
A;Reference acid splicing.
A;Reference number: I55695; MUID:89127259; PMID:3221878
A;Accession: I57695
A;Accession: I57695
A;Status: preliminary: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 103-100 ARBA
A;Residues: 103-100 ARBA
A;Residues: 103-100 ARBA
A;Residues: GB:M31221; NID:9206667; PIDN:AAAA2046.1; PID:9206668
A;Accession: I52680
A
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A) Residues: 1-183 «LEL)
A) Residues: 1-183 «LEL)
A) Roce: 53-Ser was also found instead of residues 53-56 (Arg-Leu-Pro-Gly)
B) Roce: 53-Ser was also found instead of residues 53-56 (Arg-Leu-Pro-Gly)
B) Rochim: Biophys. Acta 950, 282-295, 1988
A) Title: Differential expression of the human insulin-like growth factor II gene. Chara
A) Reference number: S03383; MUD:89000779; PMID:3167054
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G)Superfamily: insulin

G)Superfamily: insulin

G)Superfamily: insulin

E)1-24/Domain: signal sequence #status predicted <SIG>
F)25-91/Product: insulin-like growth factor II (active) #status experimental <PADS>
F)25-91/Product: insulin B chain-like #status experimental <PADS>
F)57-64/Domain: insulin Connecting C peptide-like #status experimental <PADS>
F)58-85/Domain: insulin A chain-like #status experimental <PADS>
F)58-85/Domain: peptide #status experimental <PADS>
F)59-180/Domain: carboxyl-terminal propeptide (E peptide)
F)33-11,45-84,70-75/Disulfide bonds: #status predicted
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A;Molecule type: DNA
A;Residues: 106-183 <DEP>
A;Cross-references: EMBL:X07868; NID:g32998; PIDN:CAA30717.1; PID:g1335138
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Best Local Similarity 65.7%; Pred. No. 5.9e-18;
Matches 44; Conservative 3; Mismatches 14
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A, Status: not compared with conceptual translation
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                                                                                                    insulin-like growth factor II precursor - rat
NyAlternate names: IGF-II; multiplication stimulating polypeptide
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Accession: A25550; A25598; A93554; A92605; I60178; I50058; I52428; I57695; I52
R;Frunzio, R.; Chiariotti, L.; Brown, A.L.; Graham, D.E.; Rechler, M.M.; Bruni, C.B.
A;Frunzio, R.; Chiariotti, L.; Brown, A.L.; Graham, D.E.; Rechler, M.M.; Bruni, C.B.
A;Frunzio, R.; Chiariotti, L.; Brown, A.L.; Graham, D.E.; Rechler, M.M.; Bruni, C.B.
A;Fritle: Structure and expression of the rat insulin-like growth factor II (rIGF-II) gen
A;Accession: A25350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-180 < SOB.>
A; Cross-references: 0-180 < SOB.>
A; Cross-references: 0-180 < SOB.>
B; Bento Soares, M.; Ishii, D.N.; Efstratiadis, A.
R; Bento Soares, M.; Ishii, D.N.; Efstratiadis, A.
R; Bento Soares, M.; Ishii, D.N.; Efstratiadis, A.
A; Title: Developmental and tissue-specific expression of a family of transcripts related
A; Reference number: A93554; MUID: 85215534; PMID: 3889836
A; Accession: A93554.
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A, Residues: 92-180 cHYL>
A; Residues: 92-180 cHYL>
B; Choo, T. Takahashi, K.; Matsuguchi, T.; Endo, H.; Yamamoto, M.
Biochim. Biophys. Acta 950, 411-419, 1988
A; Title: Transcriptional deviation of the rat insulin-like growth factor II gene initiat
A; Reference number: 160178; MUID:89000793; PMID:3167060
A; Accession: 160178
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1-180 cRES
A; Cross-references: EMBL:X13101; NID:956412; PIDM:CAA31493.1; PID:956413; EMBL:X14833; N
B; Minifield, H.J.; Bruni, C.B.; Frunzio, R.; Terrell, J.B.; Nissley, S.P.; Rechler, M.M.
A; Title: 1801ation of a cDNA clone encoding rat insulin-like growth factor- II precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-180 cBEN>
A; Cross-references: GB:X02213; NID:956428; PIDN:CAA26136.1; PID:956429
A; Cross-references: GB:X02213; NID:956428; D.E.; Oroszlan, S.
J. Biol. Chem. 256, 6859-6865; 1981
A; Fitle: Purification and primary structure of a polypeptide with multiplication-stimula
A; Reference number: A92329; MUID:81215670; PMID:7016879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-180 < PRU>
A; Malla, L.; Episkopou, V.; Cotter, S.; Zeitlin, S. J. Mol. Biol. 192, 737-752, 1986
A; Title: Rat insulin-like growth factor II gene. A single gene with two promoters express A; Accession: A25598; MUID: 87226166; PMID: 2438416
A; Accession: A25598
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A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Residues: 62-180 <RB2.
A; Residues: 62-180 <RB2.
A; Crose-references: GB-M30273; NID: G204923; PIDN: AAA41432.1; PID: G204924
B; Cheno, T.; Takahashi, K.; Matsuguchi, T.; Ikejiri, K.; Endo, H.; Yamamoto, M.
Biochim. Biophys. Acta 1009, 27-34, 1989
A; Title: Multiple pollyadenylation sites in a large 3'-most exon of the rat insulin-like
A; Accession: 152428; MUD: 90001243; PMID: 2477062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Nolecule type: mRNA
A;Acideus: 103-180 «RE3
A;Crostus: 103-180 «RE3
A;Crostus: EMBL:X16703; NID:9288512; PIDN:CAA34674.1; PID:9288513
B;Chiariotti, L.; Brown, A.L.P.; Frunzio, R.; Clemmons, D.R.; Rechler, M.M.; Bruni, C.B.
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A; Residues: 25-66, 'G', 58-91 < MAR>
A; Residues: 25-66, 'G', 58-91 < MAR>
B; Hylka, V.W.; Teplow, D.B.; Kent, S.B.H.; Straus, D.S.
J. Bill. Chem. 260, 14417-14420, 1985
A; Title: Identification of a peptide fragment from the chyecesion: A92505; MUID:86033940; PMID:4055782
A; Reference number: A92505
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C;Date: 23-Aug-1991 #sequence_revision 20-Sep-1991 #text_change 18-Jun-1993 C;Accession: A38612 S. C;Accession: A38612 S. C. Steiner, D.F. R;Nagamatsu, S.; Chan, S.J.; Falkmer, S.; Steiner, D.F. J. Biol. Chem. 266, 2397-2402, 1991 A;Title: Wollution of the insulin gene superfamily. Sequence of a preproinsulin-like g A;Reference number: A38612; MUID:91115860; PMID:1989990 A;Reference number: A38612.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41 ETLCGSELVDTLQFVCDDRGFFFVPQHVPPRRGAHRRSRARKGIVEECCFKGCSLKLLEM 100
23-Aug-1991 #sequence_revision 20-Sep-1991 #text_change 18-Jun-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 ETLCGABLVDALOFVCGDRGFYF - - - NKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEM
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                                                                                                                                                                                                                                                     A;Status: preliminary
A;Molecule type: mENA
A;Residues: 1-139 <NAG>
A;Cross-references: GB:NS7735
A;Note: the authors translated the codon TGC for residue 21 as Ser
C;Superfamily: insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 53.6%; Score 206.5; DB 2; Length Best Local Similarity 57.1%; Pred. No. 1e-16; Matches 40; Conservative 10; Mismatches 15; Indels
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|01 YCA--RPSKA 108
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   R;Hampton, B.; Burgess, W.H.; Marshak, D.R.; Cullen, K.J.; Perdue, J.F.
J. Biol. Chem. 264, 19155-19160, 1989
A;Title: Purification and characterization of an insulin-like growth factor II variant
A;Reference number: A34439; MUID:90037048; PMID:2553732
                                                                                                                                                                                                                                                                                                                                                                                                                                   C.Keywords: growth factor

E.124/Domain: signal sequence #status predicted <SIG>
F.1224/Domain: signal sequence #status predicted <MAT>
F.25-94/Product: insulin-like growth factor II #status predicted <MAT>
F.25-94/Product: insulin-chain B-like #status experimental <DOB>
F.60-67/Domain: insulin chain B-like #status predicted <DOB>
F.68-88/Domain: insulin chain A-like #status predicted <DOB>
F.99-94/Domain: D peptide #status predicted <DOD>
F.95-183/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F.33-74,45-87,73-78/Disulfide bonds: #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSS-SRRAPQTGIVDECCFRSCDLRRLEMYC 61
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C;Species: Homo sapiens (man)
C;Date: 04-0ct-1996 #sequence_revision 04-0ct-1996 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                           Cross-references GDB:119331; OMIM:147470 Map position: 11p15.5-11p15.5 Superfamily: insulin
                                                                                                                                                                                                 Molecule type: protein
Residues: 25-32,'X',34-44,'X',46-59 <HAM>
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Matches
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ò 임 δ 셤 C;Accession: 167610
R;Jansen, M.; van Schaik, F.M.; van Tol, H.; Van den Brande, J.L.; Sussenbach, J.S.
FBBS Lett. 179, 243-246, 1985
A;Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth A;Reference number: 153458; MUID:85102019; PMID:3881277
A;Accession: 167610

Cross-references: GB:M17863; NID:g182527; PIDN:AAA52443.1; PID:g182528

A,Cross-references: GDB:119331; OMIM:147470 A,Map position: 11p15.5-11p15.5 C,Superfamily: insulin

A, Gene: GDB: IGF2

A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 1-183 <RES>

ETLCGAELVDALQFVCGDRGFYFN---KPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEM 59 30 ETLCGGELVDTLQFVCGDRGFYPSDFQRPA--SRVSRRS--RGIVERCCFRSCDLALLET 85

insulin-like growth factor precursor - Atlantic hagfish (fragment) C;Species: Myxine glutinosa (Atlantic hagfish)

RESULT 40 A38612

Gaps

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Score 211.5; DB 2; Length 183; Pred. No. 3.4e-17; 4; Mismatches 11; Indels 9

54.9%;

46; Conservative

Local Similarity

Query Match Best Local S Matches 46

YCAPLKPAKS 69 YCA--TPAKS 93

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Sequence 7, Appli
Sequence 1, Appli
Sequence 10, Appl
Sequence 3, Appli
Sequence 2, Appli
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Sequence 30, Appl
Sequence 8, Appli
                                                                                                                                                            February 25, 2004, 06:24:38; Search time 29:1241 Seconds (without alignments) 507:509 Million cell updates/sec
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Sequence 8, Ap
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Sequence 1, A
Sequence 1, A
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Sequence 1,
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1 GPBTLCGAELVDALQFVCGD.....SCDLRRLEMYCAPLKPAKSA
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GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
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US-10-136-639-1
US-10-136-639-1
US-10-136-841-7
US-10-136-841-7
US-10-272-5318-7
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Maximum Match 100%
Listing first 45 summaries
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Sequence 14, Appl Sequence 8, Appli Sequence 34, Appl Sequence 2, Appli Sequence 2, Appli Sequence 39, Appl Sequence 39, Appl	4 4 46	H4 HH	Sequence 138, App Sequence 139, App Sequence 2, Appli Sequence 2, Appli Sequence 8, Appli Sequence 8, Appli Sequence 8, Appli
4 US-10-179- US-09-919-4 US-09-919-4 US-10-238- US-09-921-3 US-09-921-3	US-09-921-398-4 4 US-10-280-826-8 5 US-10-443-465-6 5 US-09-903-327A-1 4 US-10-241-596-1 US-09-852-261-1	4 US-10-323-046-42 4 US-10-161-088-2 US-09-852-261-12 US-09-852-261-4 4 US-10-339-740-21 3 US-10-066-009A-5 US-09-205-658-139 US-09-205-658-139	10 US-00-963-693-138 10 US-00-963-693-139 13 US-10-066-009A-2 14 US-10-136-639-2 14 US-10-136-831-8 15 US-10-272-531A-8 15 US-10-272-483A-8
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ALIGNMENTS

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Sequence 29, Application US/09848664

| Sequence 29, Application US/09848664
| Patent No. US20020146414A1
| GENERAL INFORMATION: Satiyama-Elbert, Shelly E.
| APPLICANT: Satiyama-Elbert, Shelly E.
| APPLICANT: Hubbell, Jeffrey A.
| TITLE OF INVENTION: Controlled Release of No. US20020146414A1-Heparin Binding Growt: TITLE OF INVENTION: Factors from Heparin Containing Matrices
| TITLE REPRENCE: ETH 108
| TITLE REPRENCE: ETH 108
| CURRENT APPLICATION NUMBER: US/09/848,664
| CURRENT FILING DATE: 2001-05-03
| PRIOR APPLICATION NUMBER: 09/298,084
| PRIOR PILING DATE: 1999-04-22
| NUMBER OF SEQ ID NOS: 31
| SOFTWARE: Patentin Ver. 2.1
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LENGTH: 70
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RESULT 2 US-09-848-664-30 ; Sequence 30, Application US/09848664

61 CAPLKPAKSA 70

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                                                                                                           APPLICANT: Dubaquie, Yves
APPLICANT: Pilvaroff, Ellen
APPLICANT: Dubaquie, Yves
FILE REPERENCE: P1794R1
CURRENT APPLICATION NUMBER: US/09/858,935B
CURRENT APPLICATION NUMBER: US/09/858,935B
CURRENT PILING DATE: 2002-07-02
PRIOR PILING DATE: 2000-11-15
PRIOR PILING DATE: 2000-05-16
NUMBER: OF SEQ ID NOS: 153
SEQ ID NO S: 153
LENGTH: 70
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Best Local Similarity 100.0%; Pred. No. 2.2e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
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Sequence 1, Application US/10028410
Publication No. US20020160955A1
SERERAL INFORMATION:
APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P1712R1-1
CURRENT PILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: US/09/477,924
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO :
LENGTH: 70
                                         Sequence 3, Application US/09858935B Publication No. US20030069177A1 GENERAL INFORMATION:
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ORGANISM: Homo sapiens
US-10-028-410-1
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Patent No. US20020164333A1

GENERAL INFORMATION:
APPLICANT: Nemerow, Glen R.
APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGEI
TITLE OF INVENTION: DELIVERY
TITLE OF INVENTION UNBER: US/09/903,327A
CURRENT APPLICATION NUMBER: US/09/903,327A
CURRENT FILING DATE: 2001-07-10
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 33
SEQ ID NOS: 33
LENGTH: 70
LENGTH: 70
                                                       APPLICANT: Hubbell, Jeffrey A.

TITLE OF INVENTION: Controlled Release of No. US20020146414Al-Heparin Binding Growth
TITLE OF INVENTION: Pactors from Heparin Containing Matrices
TITLE OF INVENTION: Factors from Heparin Containing Matrices
TITLE OF INVENTION: Pactors from Heparin Containing Matrices
CURRENT APPLICATION NUMBER: US/09/848,664
CURRENT FILING DATE: 2001-05-03
PRIOR PILING DATE: 1999-04-22
NUMBER OF SEQ ID NOS: 31
SOFTWARE: Patentin Ver. 2.1
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OCATION: (0)...(0)

OTHER INFORMATION: Human Insulin-like Growth Factor 1 sequence

OTHER INFORMATION: (IGF-1, mature peptide)

US-09-503-327A-8
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  GENERAL INFORMATION:
APPLICANT: Sakiyama-Elbert, Shelly E.
APPLICANT: Hubbell, Jeffrev A
Patent No. US20020146414A1
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CORGANISM: Homo sapiens
US-09-848-664-30
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ORGANISM: Human
FEATURE:
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US-09-903-327A-B
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LENGTH: 70
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TITLE OF INVENTION: SUBCELLULAR TARGETING OF THERAPEUTIC PROTEINS
FILE REPERENCE: SYM-007
CURRENT APPLICATION NUMBER: US/10/136,841
CURRENT PILING DATE: 2002-08-22
PRIOR APPLICATION NUMBER: US 60/287,531
PRIOR PLILNG DATE: 2001-04-30
PRIOR PLILNG DATE: 2001-07-10
PRIOR PLILNG DATE: 2001-07-10
PRIOR PLILNG DATE: 2001-07-10
PRIOR PELING DATE: 2001-01-15
PRIOR PELING DATE: 2001-01-15
PRIOR PELING DATE: 2002-01-23
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PATENTIN VERSION 3:0
SEQ ID NOS: 22
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100.0%; Score 385; DB 14; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.2e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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Sequence 1, Application US/10444326;
PUDLICATION NO. US20030191065A1
GENERAL INFORMATION:
APPLICANT: Diaman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P112R1
CURRENT APPLICATION NUMBER: US/10/444,326
FRIOR APPLICATION NUMBER: US/09/723,866
PRIOR APPLICATION NUMBER: US/09/723,866
PRIOR APPLICATION NUMBER: US/09/723,866
PRIOR APPLICATION NUMBER: US/09/723,866
PRIOR APPLICATION NUMBER: US/09/77,923
PRIOR FILING DATE: 2000-11-28
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
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Matches 70; Conservative
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CRGANISM: Homo sapiens
US-10-444-326-1
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ORGANISM: Homo sapiens
US-10-136-841-7
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US-10-272-531A-7
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Sequence 1, Application US/10136639

GENERAL INFORMATION:
APPLICANT: Lebewitz, Jonathan
APPLICANT: Lebewitz, Jonathan
TITLE OF INVENTION: BARRIER
FILE REPREBNCE: SYM-08

CURRENT APPLICATION NUMBER: US/10/136,639

CURRENT PILING DATE: 2002-09-06

PRIOR PILING DATE: 2001-10-16

NUMBER OF SEQ ID NOS: 4

SOFTWARE: Patentin version 3.0

SEQ ID NO : 10-16
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100.0%; Score 385; DB 14; Length 70;

Best Local Similarity 100.0%; Pred. No. 2.2e-40;

Matches 70; Conservative 0; Mismatches 0; Indels
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100.0%; Pred. No. 2.2e-40;
iive 0; Mismatches 0;
                                          APPLICANT: Schaffer, Michelle
APPLICANT: Schaffer, Mark
APPLICANT: Ultech, Mark
APPLICANT: Valdos, Felix
TITLE OF INVENTION: CRYSTALLIZATION OF IGF-1
FILE REFERENCE: P1865R1
CURRENT PILING DATE: 2002-06-24
PRIOR APPLICATION NUMBER: US 60/287,072
PRIOR APPLICATION NUMBER: US 60/287,977
PRIOR APPLICATION NUMBER: US 60/267,977
PRIOR APPLICATION NUMBER: US 60/267,977
PRIOR FILING DATE: 2001-02-09
NUMBER OF SEQ ID NOS: 5
SEQ ID NO 1
LENGTH: 70
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Best Local Similarity 100.
Matches 70; Conservative
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ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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US-10-444-262-1
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CRGANISM: Homo sapiens
US-09-852-261-10
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US-09-852-261-10
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Best Local Similarity 100.0%; Pred. No. 2.2e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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Sequence 7, Application US/1022483A

Publication No. US2004006608A1

GENERAL INFORMATION:

APPLICANT: LeBowitz, Jonathan H

APPLICANT: Beverley, Stephen

TITLE OF INVENTANCHO: TAKGETED THERAPEUTIC PROTEINS

FILE REFRENCE: SYM-007CP

CURRENT APPLICATION NUMBER: US 6/287,531

PRIOR APPLICATION NUMBER: US 60/384,452

PRIOR PILING DATE: 2002-04-30

PRIOR PLING DATE: 2002-05-06

PRIOR APPLICATION NUMBER: US 60/386,019

PRIOR PILING DATE: 2002-06-05

PRIOR PILING DATE: 2002-06-06

PRIOR PLING DATE: 2001-07-10

PRIOR PLING DATE: 2001-07-10
                              APPLICANT: BEVETLEY, Stephen
APPLICANT: BOY, William S.
TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
FILE RAPERENCE: SYM-009
CURRENT APPLICATION NUMBER: US/10/272,531A
CURRENT APPLICATION NUMBER: US 60/384,452
PRIOR PILING DATE: 2002-10-16
PRIOR PILING DATE: 2002-65-29
PRIOR PILING DATE: 2002-06-79
PRIOR FILING DATE: 2002-06-79
PRIOR FILING DATE: 2002-06-65
PRIOR FILING DATE: 2002-06-65
PRIOR FILING DATE: 2002-06-65
NUMBER OF SEQ ID NOS: 22
SEQ ID NOS: 22
SEQ ID NOS: 22
SEQ ID NOS: 22
SEQ ID NOS: 24
SEQ ID NOS: 27
SEQ ID
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APPLICANT: LeBowitz, Jonathan H
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CORGANISM: Homo sapiens
US-10-272-483A-7
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ORGANISM: Homo sapiens
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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100.0%; Score 385; DB 9; Length 105;
Best Local Similarity 100.0%; Pred. No. 3.5e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
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Patent No. US20020083477A1
GENERAL INFORMATION:
APPLICANT: GOLDSPIRK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DANAGE
FILE REPERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT PILING DATE: 2001-05-10
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOUTHARTS: PATENTIN VET: 2.1
SEQ ID NO 10
SEQ ID NO 10
                                                                                                                                                                                                                                            WESULT 12
US-10-444-262-1
US-10-444-262-1
Sequence 1, Application US/10444262
Sequence 1, Application US/10444262
PUBLICARI OF US20040023883A1
APPLICAMT: Dubaquie, Yves
APPLICAMT: Lowman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P1712R1
CURRENT APPLICATION NUMBER: US/10/444,262
PRIOR APPLICATION NUMBER: US/99/724,478
PRIOR APPLICATION NUMBER: US/99/724,478
PRIOR FILING DATE: 2000-11-28
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 1
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49 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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COMPUTER READBLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER IE NP C COMPACIBLE
COMPUTER: TEM PC COMPACIBLE
COMPUTER: TEM PC COMPACIBLE
COMPUTER: TEM PC COMPACIBLE
COMPACIBLE PATENTIN PC-DOS/MS-DOS
SOFTWARE: PATENTIN PAPEL:
APPLICATION DATE: 25-Jun-2002
CLASSIFICATION: -CURknown>
PRIOR APPLICATION: -CURknown>
PRIOR APPLICATION: -CURknown>
PRIOR APPLICATION: -CURknown>
ATTORNEY/AGENT INTENEMATION:
ATTORNEY/AGENT INTENEMATION:
REGISTRATION NUMBER: 36,482
REGISTRATION NUMBER: 1165:100
TELEPHONE: (510) 601-2704
TELEPHONE: (510) 601-2704
TELEPHONE: (510) 655-3542
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
                                                                          Sequence 14, Application US/10179046
; Publication No. US20330013154A1
; GENERAL INFORMATION:
; APPLICANT: Crawford, Kenneth
; Zaror, Isabel
; Inis, Michael
; TITLE OF INVENTION: Pichia Secretory Leader for Protein
; Expression
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Publication No. US20030166555A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Albeini, Cristina M.
APPLICANT: Bear, Mark F.
TITLE OF INVENTION: Methods and Compositions for Regulating
FILE REFERENCE: 3499-1001-003
CURRENT APPLICATION NUMBER: US/10/251,661
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;
SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-179-046-14
                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSER: Chiron Corporation
STREET: 4560 Horton Street
CITY: Emeryville
STATE: California
COUNTRY: United States
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STRANDEDNESS: single
                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 40
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US-10-251-661-8
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100.0%; Score 385; DB 9;
Best Local Similarity 100.0%; Pred. No. 3.6e-40;
Matches 70; Conservative 0; Mismatches 0;
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; Sequence 2, Application US/0985261
; Sequence 2, Application US/0985261
; Patent No. US20020083477A1
; GENERAL INFORMATION:
    APPLICANT: GLDSPINK, GEOFFREY
    APPLICANT: TEXENGHI, GIORGIO
    TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
    TIER REFERENCE: 117-351
CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: GB 0011278.9
; PRIOR FILING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 14
; SEQ ID NO 2
ILENGTH: 110
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Best Local Similarity 100.0
Matches 70; Conservative
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61 CAPLKPAKSA 70
                                      61 CAPLKPAKSA 70
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; ORGANISM: Homo sapiens
US-09-852-261-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Felis catus
US-10-238-114-3
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Gaps

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Sequence 2, Application US/10238114

Publication No. US20030100073A1

Publication No. US20030100073A1

GENERAL INFORMATION:

APPLICANT: Marial

APPLICANT: MADREON! Christine Michele

TITLE OF INVENTION: IGP-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE R

FILE REPRENCE: 454313-3165.1

CURRENT APPLICATION NUMBER: US/10/238,114

CURRENT PILING DATE: 2002-09-10

PRIOR FILING DATE: 2001-09-11

PRIOR FILING DATE: 2001-09-12

PRIOR FILING DATE: 2001-09-12

PRIOR FILING DATE: 2001-09-12

NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin version 3.1

SEQ ID NO 2

LENGTH: 153
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US-10-207-655-55
Sequence 55, Application US/10207655
Sequence 55, Application US/10207655
Sequence 55, Application William Sequence 55, Application No. US20030118592A1
GENERAL INFORMATION:
APPLICANT: Ledbetter, Jeffrey A.
APPLICANT: Hayden-Ledbetter, Martha S.
TITLE OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
FILE REFRENCE: 390069,401C1
CURRENT PILING DATE: 2002-07-25
NUMBER OF SEQ ID NOS: 426
SOGTWARE PATENTIN Version 3.0
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100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 5.3e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                             Query Match
100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 5.3e-40;
Matches 70; Conservative 0; Mismatches 0;
SOFTWARE: Patentin version 3.0 SEQ ID NO 3 LENGTH: 153
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                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
US-10-136-639-3
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ORGANISM: Homo sapiens
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ORGANISM: Felis catus
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETING PROTEINS ACROSS THE BLOOD
TITLE OF INVENTION: BARRIER
FILE REPRESENCE: SYM-008
CURRENT APPLICATION NUMBER: US/10/136,639
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 60/329,650
NUMBER OF SEQ ID NOS: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33 GPETLICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 92
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                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Mutter, George L.
APPLICANT: Mutter, George L.
TITLE OF INVENTION: PROGNOSTIC CLASSIFICATION OF ENDOMETRIAL CANCER.
FILE REPERENCE: B0801/1225
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
PRIOR APPLICATION NUMBER: US 60/221,735
PRIOR FILING DATE: 2000-07-31
NUMBER OF SEQ ID NOS: 100
SOFTWARE: Patentin version 3.0
SEQ ID NO 74
LENGTH: 153
TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                            Query Match
100.0%; Score 385; DB 14; Length 137;
Best Local Similarity 100.0%; Pred. No. 4.7e-40;
Matches 70; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0%; Pred. No. 5.3e-40;
Matches 70; Conservative 0; Mismatches 0;
  CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/193,614
PRIOR FILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: PCT/US01/10661
PRIOR FILING DATE: 2001-04-02
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FASTEEQ for Windows Version 4.0
SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5-09-919-497-74
Sequence 74, Application US/09919497
Patent No. US20020106662A1
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                                                                                                                                                                                                                                LENGTH: 137
TYPE: PRT
CRGANISM: Homo sapiens
US-10-251-661-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRGANISM: Homo sapiens US-09-919-497-74
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GENERAL INFORMATION:
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US-09-921-398-41
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                                                                                                                                                    49 GPETLCGABLVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGTVDECCFRSCDLRRLEMY 108
                                                                                                                      1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE Bell Selezer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
STATE: NC
COUNTRY: US
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                                                                                                                                                                                                                                                                                                                                            Sequence 39, Application US/09921398
Sequence 39, Application US/09921398
Patent No. US20020055169A1
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: PROTEINS IN YEAST
                                         Score 385; DB 14; Length 153; Pred. No. 5.3e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 155;
                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 27622
COMPUTER READABLE FORM:
COMPUTER: PLOEDY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            / Match 100.0%; Score 385; DB 9; Local Similarity 100.0%; Pred. No. 5.3e-40; Nes 70; Conservative 0; Mismatches 0;
                       100.0%; Scc...
100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY ACETY INFORMATION:
NAME: Spriil, W. Murray
REGISTRATION NUMBER: 32,943
REPRENCE/DOCKET NUMBER: 5784-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPHONE: 919 420 2202
INFORMATION FOR SEQ ID NO: 39:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/921,398
FILING DATE: 02-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 39:
US-09-921-398-39
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Publication No. US20030077831A1
                                           Query Match
Best Local Similarity 100.(
Matches 70; Conservative
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US-10-280-826-39
    US-10-207-655-55
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Matches
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86 GPETLCGAELVDALQFVCGDRGFYFNKPIGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
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CORRESPONDENCE ADDRESS:
ADDRESSE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 41, Application US/09921398
Patent No. US20020055169A1
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
ATILE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
PROTEINS IN YEAST
                        FOR EXPRESSION OF HETEROLOGOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 155;
                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird,
STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
STATE: NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC_compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
100.0%; Score 385; DB 14;
Best Local Similarity 100.0%; Pred. No. 5.3e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/280,826
FILING DATE: 25-Oct-2002
CLASSIFICATION: UNKNOWN->
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/989,251
FILING DATE: CURKNOWN->
ATTORNEY/AGENT INFORMATION:
NAME: SPICHILI, W. MULTAY
REGISTRATION NUMBER: 32,943
REGISTRATION NUMBER: 32,943
REGISTRATION NUMBER: 5784-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPRAX: 919 842 3175
INFORMATION FOR SEQ ID NO: 39:
SEQUENCE CRARACTERISTICS:
                                                 PROTEINS IN YEAS'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: procein
; SEQUENCE DESCRIPTION: SEQ ID NO: 39:
US-10-280-826-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                      ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IYPE: amino acid
                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      146 CAPLKPAKSA 155
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20, Application US/10443466A Publication No. US20040018191A1 GENERAL INFORMATION:
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Patent No. US20020164333A1
GENERAL INFORMATION:
APPLICANT: Nemerow, Glen R.
                                                                                                      Query Match
Best Local Similarity 100.0%; Por Matches 70; Conservative 0;
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APPLICANT: Wang, Yan

TOANT: Pachter, Jonathan A
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Greenberg, Robert
Leonard, Presta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Brams, Peter
Feingersh, Diane
Williams, Denise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100...
And 70; Conservative
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US-10-443-466A-20
                                                                                                                                                                                                                                                                         61 CAPLKPAKSA
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                                                            US-10-280-826-41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: SG05 Glenwood Ave. Suite 310
CITY: Raleigh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 41, Application US/10280826
Publication to US20030077831A1
GENERAL INFORMATION: Tekamp-Olson, Patricia
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: FOCOMPUTER:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
100.0%; Score 385; DB 9;
Best Local Similarity 100.0%; Pred. No. 6.7e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/280,826
FILING DATE: 25-Oct-2002
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/989,251
FILING DATE: «Unknown»
ATTORNEY/AGRAT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/921,398
                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 41:
US-09-921-398-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS IN YEAS
                                                                                                                      NAME: SPUTIT, W. MILTAY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784-
TELEPHONE: 919,420,220
TELEPHONE: 919,813,175
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
                                                                FILING DATE: 02-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                        LENGTH: 191 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 191 amino acids
TYPE: amino acid
                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 919 881 3175 INFORMATION FOR SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               146 CAPLKPAKSA 155
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APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGE
TITLE OF INVENTION: GENE
TITLE OF INVENTION: DELIVERY
                                                                                                                                                                          86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
                                                                                                                      9
                                                                                                                      1 GPETILCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                            Gaps
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Score 385; DB 14; Length 191;
Pred. No. 6.7e-40;
Mismatches 0; Indels 0
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TITLE OF INVENTION: NEUTRALIZING HUMAN ANTI-IGFR ANTIBODY
FILE REFERENCE: OCO1533-K-US
CURRENT APPLICATION NUMBER: US/10/443,466A
CURRENT FILING DATE: 2003-05-22
PRIOR PELING DATE: 2002-05-24
PRIOR FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: 60/393,214
PRIOR APPLICATION NUMBER: 60/436,254
PRIOR FILING DATE: 2002-07-02
PRIOR FILING DATE: 2002-12-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 385; DB 15;
; Pred. No. 6.9e-40;
0; Mismatches 0;
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 382; DB 9; Length 105;
Pred. No. 8.2e-40;
1; Mismatches 0; Indels
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ilarity 98.6%; Pred. No. 8.7e-40;
Conservative 1; Mismatches 0;
                                              Sequence 14, Application US/09852261
| Patent No. US20020083477A1
| GENERAL INFORMATION:
| APPLICANT: GOLDSPINK, GEOFFREY
| APPLICANT: TERENGHI, GIORGIO
| TITLE OF INVENTION: REPAIR OF NERVE DAWAGE
| FILE REPERENCE: 117-351
| CURRENT APPLICATION NUMBER: US/09/852,261
| CURRENT FILING DATE: 2001-05-10
| PRIOR APPLICATION NUMBER: GB 0011278.9
| PRIOR FILING DATE: 2000-05-10
| NUMBER OF SEQ ID NOS: 14
| SEQ ID NO 14
| SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 6, Application US/0985261
| Paent No. US20020083477A1
| GENERAL INFORMATION:
| APPLICANT: GOLDSTINK, GEOFFREY
| APPLICANT: TERENGHI, GIORGIO
| TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
| TITLE REFERENCE: 117-351
| CURRENT APPLICATION NUMBER: US/09/852,261
| CURRENT PILING DATE: 2001-05-10
| PRIOR PILING DATE: 2000-05-10
| NUMBER OF SEQ ID NOS: 14
| SEQ ID NO 6
| LENGTH: 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT; ORGANISM: Oryctolagus cuniculus
US-09-852-261-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 98.6%;
Matches 69; Conservative
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Best Local Similarity
Matches 69; Conserva
                                     US-09-852-261-14
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CURRENT APPLICATION NUMBER: US/09/903,327A
CURRENT FILING DATE: US/010-07-10
FRIOR APPLICATION NUMBER: US/03/613,017
FRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 12
LENGTH: 510
LENGTH: 510
TYPE: PRT
ORGANISM: Artificial Sequence
FRATURE:
CORGANISM: Artificial Sequence
FRATURE:
COTHER INFORMATION: Fusion protein with N-terminal portion of DAV-1 heavy chain
US-09-903-327A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 500
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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; Pred. No. 4.1e-39;
0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 385; DB 9; Length 510; 100.0%; Pred. No. 2e-39; Live 0; Mismatches 0; Indels
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US-10-241-599-14

US-10-241-599-14

Publication No. US20030166238A1

GENERAL INFORMATION:

APPLICANT: Microbiological Research Authority

APPLICANT: Microbiological Research Limited

TITLE OF INVENTION: Recombinant Toxin Fragments

FILE REFRENCE: 1581.0130003

CURRENT APPLICATION NUMBER: US/10/241,596

CURRENT FILING DATE: 2002-09-12

PRIOR FILING DATE: 1999-02-23

PRIOR FILING DATE: 1996-02-3

PRIOR FILING DATE: 1996-02-3

PRIOR FILING DATE: 1996-12-17

PRIOR FILING DATE: 1996-12-17

PRIOR FILING DATE: 1996-12-17

PRIOR FILING DATE: 1996-12-17

PRIOR FILING DATE: 1996-12-13

PRIOR PRILING DATE: 1996-12-13

PRIOR PRING DATE: 1996-12-13
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ORGANISM: Clostridium botulinum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70; Conservative
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Best Local Similarity
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Best Local.Si
Matches 70;
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                                                                                             1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                               Gaps
Length 111;
                                             0; Indels
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US-10-323-046-42
US-10-323-046-42
; Sequence 42, Application US/10323046
; Publication No. US20030187232A1
; GENERAL INFORMATION:
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US-10-339-740-218
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APPLICANT: Hubbell, Jeffrey A
APPLICANT: Schense, Jason C
APPLICANT: Schense, Jason C
APPLICANT: Schense, Jason C
TILE OF INVENTION: Growth Factor Modified Protein Matrices for Tissue
TILE OF INVENTION: Engineering
FILE REFERENCE: ETH 107 CIP (2)
CURRENT APPLICANTON NUMBER: U2/10/323,046
CURRENT PILING DATE: 109/11/153
PRIOR FILING DATE: 1998-08-27
NUMBER OF SEQ ID NOS: 43
SEQ ID NOS: 43
LENGTH: 91
LENGTH: 91
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Pred. No. 1.4e-37;
1; Mismatches 3; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                   Length 91;
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Pred. No. 2.2e-39;
0; Mismatches 1;
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Publication No. US20030077761A1
GENERAL INFORMATION:
APPLICANT: Parrow, Vendela
APPLICANT: ROSENGATON:
ILLE CANT: ROSENGATON: LINGA
FILE REFERENCE: 13425-111001
CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT APPLICATION NUMBER: SE 0101934-8
PRIOR APPLICATION NUMBER: SE 0101934-8
PRIOR FILING DATE: 2001-06-01
NUMBER OF SEQ ID NOS: 3
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 12, Application US/09852261; Patent No. US20020083477A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   98.2%;
                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial sequence
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Best Local Similarity 94.3%;
Matches 66; Conservative
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Best Local Similarity 98.0.
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LENGTH: 133
TYPE: PRT
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Sequence 218, Application US/10339740
Publication No. US20030187246A1
GENERAL INFORMATION:
APPLICANT: Doberterior, Stephen
APPLICANT: Reddy, Bindu
APPLICANT: Platt, Darren
APPLICANT: Ferguson, Kimberly
TITLE OF INVENTION: NUCLEIC ACIDS AND PROTEINS OF C. ELEGANS INSULIN-LIKE GENES AND
TITLE OF INVENTION: THEREOF
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Pred. No. 1e-34,
0, Mismatches 7; Indels
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Pred. No. 1.1e-34;
0; Mismatches 7; Indels
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278:9
PRIOR PILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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; Sequence 4, Application US/09852261
; Patent No. US20020083477A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                           88.6%;
90.0%;
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SEQ ID NO 4
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Best Local Similarity
Matches 63; Conserva
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Best Local Similarity
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; ORGANISM: Rattus sp.
US-09-852-261-12
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APPLICANT: Ruvkun, Gary
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ORGANISM: Bos taurus
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                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Canis
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                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GPETICGAELVDALQFVCGDRGFYFNKPT--XXXXXXXXXQTGIVDECCFRSCDLRRLEMY 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ETLCGAELVDALQFVCGDRGFYFNKPTGYGSS-----TGIVDECCFRSCDLRRLEMYCA 54
                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                          .
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                                                                                                                                                                                                                                                                                                                               Score 317; DB 14; Length 68; Pred. No. 6.1e-32; 0; Mismatches 8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 300; DB 13; Length 56;
Pred. No. 6.4e-30;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
; OTHER INFORMATION: Residues observed in IGF-1 structure.
US-10-066-009A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Ultsch, Mark
APPLICANT: Ultsch, Mark
APPLICANT: Vajdos, Felix
TITLE OF INVENTION: CRYSTALLIZATION OF IGF-1
FILE REFERENCE: P1869R.
CURRENT APPLICATION NUMBER: US/10/066,009A
CURRENT FILING DATE: 2002-06-24
PRIOR APPLICATION NUMBER: US 60/287,072
PRIOR PILING DATE: 2001-04-27
PRIOR PILING DATE: 2001-06-09
NUMBER OF SEQ ID NOS: 5
SEQ ID NO 5
FILE REFERENCE: 7326-069-999
CURRENT APPLICATION NUMBER: US/10/339,740
CURRENT FILING DATE: 2003-01-09
PRIOR APPLICATION NUMBER: US/09/084,303A
PRIOR FILING DATE: 1998-05-26
NUMBER OF SEQ ID NOS: 298
SOFTWARE: PatentIn version 3.1
SOFTWARE: 68
                                                                                                                                                                                                                FEATURE:

NAME/KEY: misc feature

LOCATION: (30)...(37)

OTHER INFORMATION: Xaa = Any amino Acid
US-10-339-740-218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 138, Application US/09205658
Patent No. US20010029617A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/10066009A Publication No. US20020165155A1 GENERAL INFORMATION:
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1 Similarity 90.3%;
56; Conservative (
                                                                                                                                                                                                                                                                                                                                 82.3%;
ilarity 85.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Schaffer, Michelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAPLKPAKSA 68
                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 56; Conservat
                                                                                                                                                                                                                                                                                                                                                      Similarity
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US-10-066-009A-5
                                                                                                                                                                                                                                                                                                                                   Query Match
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Matches
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TITLE OF INTERFLOR. INTERPREDITIC AND DIAGNOSTIC TOOLS FOR TITLE OF INTERFLOR. INTERPREDITIC AND DIAGNOSTIC TOOLS FOR TITLE OF INTERFLOR. INTERPREDITIC AND DIAGNOSTIC CONDITIONS TITLE FOR INTERFLOR. INTERPREDITIC OF A PRELICATION INTERPREDITIC OF A PRELICATION INTERPREDITIC OF A PRELICATION INTERPREDITIC OF A PRELICATION WINGERS 108/68/5134

PRALIES FILLING DATE: 1397-07-07

PRALIES FILLING DATE: 1397-07-15

PRALIES FILLING DATE: 1397-07-17

PRALIES FILLING DATE: 1399-07-17

PRALIES FILLING DATE: 1390-07-17

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Sequence 8, Applisequence 39, Applisequence 39, Applisequence 39, Applisequence 11, Applisequence 41, Applisequence 14, Applisequence 14, Applisequence 16, Applisequence 18, Applisequence 12, Applisequence 11, Applisequence 12, Applisequence 11, Applisequence 12, Applisequence 11, Applisequence 12, Applisequence 11, Applisequence 12, Applisequence 12, Applisequence 13, Applisequence 14, Applisequence 14, Applisequence 15, Applisequence 16, 
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APPLICANT: Walton, Paul E.
APPLICANT: Walton, Paul E.
APPLICANT: Walton, Paul E.
APPLICANT: Ballard, Francis J.
APPLICANT: Manitard, Francis J.
APPLICANT: McMirty, John P.
APPLICANT: Phelps, Patricia V.
TITLE OF INVENTION: Method of Administering IGF-1, IGF-2, TITLE OF INVENTION: and Analogs Thereof to Birds CORRESSENCES: 18
CORRESPONDENCE ADRESS:
ADDRESSEE: Aboress: 18
CORRESPONDENCE ADRESS:
ADDRESSEE: Vo. Drawer 34009
CITY: Charlotte
STATE: No. 5444045th Carolina
COUNTRY: US
ZIP: 28244
COUNTRY: US
ZIP: 28244
COUNTRY: US
ZIP: 28244
COUNTRY: BM PC compatible
COUNTRY: BM PC compatible
COUNTRY: PATE: Floppy disk
COMPTTER: RAADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPTTER: BM PC compatible
OFERATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIN Release #1.0, Version #1.30
CURRENT APPLICATION INTERER: US/07/947,035
FILING DATE: 17-SEP-1992
CLASSIFICATION NUMBER: 31,665
REGISTRATION NUMBER: 31,665
REGISTRATION NUMBER: 31,665
REGISTRATION NUMBER: 31,665
REGISTRATION NUMBER: 31,665
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100.0%; Pred. No. 3.3e-40;
iive 0; Mismatches 0;
US-08-328-961-8
US-08-462-397-8
US-09-989-21-39
US-09-340-250-39
US-09-142-583A-11
US-09-142-583A-11
US-09-340-25-41
US-09-328-11
US-09-328-11
US-08-142-583A-4
US-08-142-583A-12-583A-4
US-08-142-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12-583A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                US-07-654-611-2
US-07-654-611-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 5175-59
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 881-3140
TELEFAX: (919) 881-3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 1, Application US/07947035; Patent No. 5444045; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 575102
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 70 amino acids
TYPE: amino acid
STRANDEDNES: single
TOPOLLGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 70; Conservative
           US-07-947-035-1
              Sequence 1, Appli
Sequence 17, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 17, Appli
Sequence 1, Appli
                                                                                                                                                                                                February 25, 2004, 06:20:43; Search time 16.8613 Seconds (without alignments) 214.326 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 14
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Sequence
Sequence
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Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                     385
1 GPETLCGAELVDALQFVCGD......SCDLRRLEMYCAPLKPAKSA
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1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*

1: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
                                          GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT US92 09443A-1
PCT US93-11458-1
PCT-US95-01655-1
US-07-989-845-28
US-07-989-844-12
US-08-161-1241-12
US-08-240-121-12
US-08-240-121-12
PCT-US93-11297-12
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US-08-823-245-17
US-08-482-271-1
US-09-080-120A-1
US-09-432-517-1
US-09-723-881-1
US-09-723-881-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT-US93-04329-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              389414 seqs, 51625971 residues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                      - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                            US-10-066-009A-1
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Match Length
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                                                                                                                        OM protein
                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                           Run on:
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                          1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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| Patent No. 5612454
| Patent No. 5612454
| Patent No. 5612454
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Query Match

100.0%; Score 385; DB 1; Length 7

Bet Local Similarity 100.0%; Pred. No. 3.38-06;

Matches 70; Conservative 0; Mismatches 0; Indels

Matches 70; Conservative 0; Mismatches 0; Indels
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CURRENT APPLICATION DATA:
FULLOS DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING PATE:
NAME:
FILING CARNOT INFORMATION:
NAME:
REGISTRATION NUMBER:
REGISTRATION NUMBER:
REGISTRATION NUMBER:
REGISTRATION NUMBER:
TELECOMMUNICATION INFORMATION:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 17, Application US/07958903A
Patent No. 565214
GENERAL INFORMATION:
APPLICANT: Lewis, Michael E.
APPLICANT: Kauer, James C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 440706
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : 70 amino acids
AMINO ACID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CAPLKPAKSA 70
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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APPLICANT: Smith, Kevin R.
APPLICANT: Callison, Kathleen V.
APPLICANT: Baldino, Frank
APPLICANT: Baldino, Frank
APPLICANT: Baldino, Frank
APPLICANT: Igbal, Mohamed
TITLE OF INVENTION: TREATING DISORDERS BY APPLICATION
TITLE OF INVENTION: ANALOGS
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSEE: 74sh & Richardson
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                        CITY: Boston
CITY: Boston
COUNTRY: Doston
COUNTRY: U.S.A.
ZIP: 02110-2804
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 553X
COMPUTER: BADABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: Model 502 or 553X
COMPUTER: WordPerfect (version 5.0)
SOFTWARE: WordPerfect (version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/958,903A
FILING DATE: October 7, 1992
APPLICATION NUMBER: 07/361,595
FILING DATE: June 5, 1989
APPLICATION NUMBER: 07/534,139
FILING DATE: April 15, 1992
APPLICATION NUMBER: 07/534,139
FILING DATE: April 15, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/COCKET NUMBER: 02655/003004
TELEFAM: (617) 542-8906
TELEFAM: 200154
INFORMATION FOR SEQ ID NO: 17:
SEGURANTICR TARRATERIS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Lewis, Michael E.
APPLICANT: Lewis, Michael E.
APPLICANT: Kauer, James C.
APPLICANT: Smith, Kevin R.
APPLICANT: Callison, Kathleen V.
APPLICANT: Baldino, Frank
APPLICANT: Iglain, Frank
APPLICANT: Iglain, Mohamed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-462-018-17; Sequence 17, Application US/08462018; Patent No. 5703045
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US-07-958-903A-17
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Query Match
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                        COUNTRY: U.S.A.

ZIP: DOLO-2804
ZIP: 02110-2804
ZIP: 02110-2804
COMPUTER: BADABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: S5X
COPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: FORDERFECT (Version 5.0)
SOFTWARE: S.I)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/823,245
FILING DATE: March 24, 1997
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U7/361,595
FILING DATE: June 6, 1989
APPLICATION NUMBER: 07/361,595
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/869,913
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/969,913
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/969,913
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/968,903
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/968,903
FILING DATE: APPLI 15, 1992
ATPORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER: 02/958,003
FILING DATE: NUMBER: 07/958,903
FILING DATE: NUMBER: 07/958,903
FILING DATE: APPLI 15, 1992
ATPORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER: 02/958,003
TELECOMMUNICATION INFORMATION:
FACTORS AND
ANALOGS
   TITLE OF INVENTION: FACTORS AND TITLE OF INVENTION: ANALOGS NUMBER OF SEQUENCES: 56 CORRESPONDENCE ADDRESS: ADDRESSE: Fish & Richardson STREET: 225 Franklin Street CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 70
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TOPOLOGY: N/A
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US-08-482-271-1
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                TREATING DISORDERS BY APPLICATION OF INSULIN-LIKE GROWTH FACTORS AND ANALOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Lewis, Michael
APPLICANT: Kauer, James C.
APPLICANT: Smith, Kevin R.
APPLICANT: Smith, Kevin R.
APPLICANT: Baldino, Frank
APPLICANT: Baldino, Frank
APPLICANT: Neff, Nicola
APPLICANT: Iqbal, Mohamed
APPLICANT: TITLE OF INVENTION: TREATIONTION
TITLE OF INVENTION: APPLICATION
TITLE OF INVENTION: OF INSULIN-LIKE GROWTH
                                                                                                                                                                                                                                             CITY: Boston
STATE: Massednusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5. Diskette, 1.44 Mb
MEDTUM TYPE: 3.5. Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 555X
OPERATING SYSTEM: MS-DOS (Version 5.0)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/462,018
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 02655/003005
TELECOMMULCATION INFORMATION:
TELEFHONE: (617) 542-5070
TELEFAX: (617) 542-8906
                    TITLE OF INVENTION: TREATING DISORDER TITLE OF INVENTION: OF INSULIN-LIKE G TITLE OF INVENTION: ANALOGS NUMBER OF SEQUENCES: 56 CORRESONDENCES: 56 CORRESONDENCES: Fish & Richardson P.C. STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/958,903
FILING DATE: OCCODER 7, 1992
APPLICATION NUMBER: 07/361,595
FILING DATE: June 5, 1989
APPLICATION NUMBER: 07/534,139
FILING DATE: June 5, 1990
APPLICATION NUMBER: 07/869,913
FILING DATE: APPLI 15, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17, Application US/08823245
Patent No. 5776897
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 200154
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
LENGTH: 70
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                         Sequence 1, Application US/08482271
Patent No. 5789547
GENERAL INFORMATION:
APPLICANT: Sommer, Andreas
APPLICANT: Ogawa, Yasushi
APPLICANT: Tao, Peggy
TITLE OF INVENTION: MITH CORRECT FOLDING AND DISULFIDE BONDING
TITLE OF INVENTION: WITH CORRECT FOLDING AND DISULFIDE BONDING
NUMBER OF SEQUENCES:
ADDRESSE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
                                               ó,
Length 70;
                                               0; Indels
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Sequence 1, Application US/08432517
Patent No. 6083912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (650) 494-0792
TELEX: 705141
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (314) 727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (314) 727-6092
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acide
TYPE: amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-080-120A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-432-517-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GPETLCGAELVDALQEVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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Sequence 1, Application US/09080120A

Sequence 1, Application US/09080120A

GENERAL INFORMATION:
APPLICANT: BAG1, CEDO M.
APPLICANT: ROSEN, DAVID M.
TILLE OF INVENTION: IGF/IGFBP COMPLEX FOR PROMOTING BONE
TITLE OF INVENTION: FORMATION AND FOR REGULATING BONE
STITLE OF INVENTION: FORMATION AND FOR REGULATING BONE
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FORESTER
STREET: 755 Page Mill Road
CTTWV. DELICATION
CTTWV. DELICATION
CONTRIBUTION
CONTRIB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Score 385; DB 1; Length 70;
; Pred. No. 3.3e-40;
0; Mismatches 0; Indels
                                                                                                       COMPUTER REDDABLE FORM;

COMPUTER REDDABLE FORM;

MEDIUM TYPE: Floppdible
COMPUTER: IBM PC compatible
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,271
FILING DATE: 07-JUN 1995
CLASSIFICATION NUMBER: US/08/482,271
FILING DATE: 07-JUN 1995
CLASSIFICATION NUMBER: 22095-20284.00
TELEPHONE: (415) 813-560
TELEPHONE: (415) 813-560
TELEPHONE: (415) 813-560
TELEPHONE: (415) 813-560
TELEPAX: (415) 813-560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,120A
FILING DATE: 14-MAY-1998
CLASSIFICATION 514
PRIOR APPLICATION NUMBER: US 08/806,918
FILING DATE: 26-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
100.0%; Score 385;
Best Local Similarity 100.0%; Pred. No. 3
Matches 70; Conservative 0; Mismatche
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 CAPLKPAKSA 70
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STATE: California
COUNTRY: USA
ZIP: 94304-1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TOPOLOGY: linear
US-08-482-271-1
Palo Alto
                                                                                    USA
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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APPLICANT: KHOURI, ROGER K.

TITLE OF INVENTION:
MUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSES:
RISSOURI
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE:
MISSOURI
COUNTRY: USA
ZIP: 63105-1817
COMPUTER READABLE FORM:
MEDIUM TYPE: F10py disk
COMPUTER: B F10py disk
COMPUTER: DA COMPUTED:
COMPUTED
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CLASSIFICATION: 514
PRICR APPLICATION DATA:
APPLICATION NUMBER: US 08/450,258
FILING DATE: 25-WAY-1995
CLASSIFICATION 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/278,456
FILING DATE: 20-UUL-1994
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: BLEfinger, Nicholas
REGISTRATION NUMBER: 39,124
REPERENCE/DOCKET NUMBER: 22095202703
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION INFORMAT
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DB 4; Length 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 385; DB 4; Best Local Similarity 100.0%; Pred. No. 3.3e-40; Matches 70; Conservative 0; Mismatches 0;
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Sequence 1, Application US/09723981

PAPELICANT: Dubaquie, Yves

APPLICANT: Lownan, Henry

TITLE OF INVENTION: PROTEIN VARIANTS

FILE REFERENCE: DITLIAR

CURRENT APPLICATION NUMBER: US/09/723,981

CURRENT FILING DATE: 2000-11-28

PRIOR APPLICATION NUMBER: 09/477,923

PRIOR FILING DATE: 2000-01-05

NUMBER OF SEQ ID NOS: 6

SEQ ID NO. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-09-477-924-1
Sequence 1, Sequence 1, Sequence 1, Sequence 1, Sequence 1, Setent No. 6403764
Fatent No. 6403764
GENERAL INFORMATION:
APPLICANT: Dubaquile, Yves
ITILE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: PITIZR1-1
CURRENT APPLICATION WUMBER: US/09/477,924
CURRENT FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 1
LENGTH: 70
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 70
                                                                                                                                                                                                                                                                                                                                                                                     61 CAPLKPAKSA 70
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; STRANDEDNESS:
; TOPOLOGY: linear
US-07-963-329A-1
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ORGANISM: Homo sapiens
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-723-981-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: BOYCZKO-COYDE, DONDA
APPLICANT: Neff, Nicola
APPLICANT: Lewis, Michael E.
APPLICANT: Lewis, Michael E.
APPLICANT: Lewis, Michael E.
APPLICANT: Ideal, Mohamed
TITLE OF INVENTION: TREATING RETINAL NEURONAL DISORDERS
TITLE OF INVENTION: BY THE APPLICATION OF INSULIN-LIKE
TITLE OF INVENTION: GROWTH FACTORS AND ANALOGS
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
100.0%; Score 385; DB 3; Length 70;
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                              NAME/KEY: Disulfide-bond
LOCATION: 6.48
OTHER INFORMATION: /note= "Disulfide bond between two
OTHER INFORMATION: cysteines."
FEATURE:
NAME/KEY: Disulfide-bond
                                                                                                                                                                                                                                           LOCATION: 18.61
OTHER INFORMATION: /note= "Disulfide bond between two
OTHER INFORMATION: cysteines."
                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 47..52
OTHER INFORMATION: /note= "Disulfide bond between two
OTHER INFORMATION: cysteines."
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 Diskette, 1.44 Mb
COMPUTER: 18P F3.2 Diskette, 1.44 Mb
COMPUTER: 18P F3.2 Model 502 or 558X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: 199221015
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/963,329A
FILING DATE: 19921015
CLASSIFICATION DATA:
APPLICATION NUMBER: 07/790,630
FILING DATE: No. 6310040ember 8, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 30,162
TELECOMMUNICATION INFORMATION:
TELEFONGE: (617) 542-8906
TELEFRANE: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/07963329A
Patent No. 6310040
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
                            MOLECULE TYPE: protein
HYPOTHETICAL: NO
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 CAPLKPAKSA 70
  TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-07-963-329A-1
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                                                                                                  1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                  1 GPETLCGAELVDALQEVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                         Gaps
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0
Query Match
100.0%; Score 385; DB 4; Length 70;
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 385; DB 5; Length 70; 100.0%; Pred. No. 3.3e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED INSULIN-LIKE GROWTH FACTOR NUMBER OF SEQUENCES: 20

NUMBER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OFBRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/11458
FILING DATE: 24-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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Pred. No. 3.3e-40;
         PUIGE APPLICATION DATA:
APPLICATION DATE:
APPLICATION NUMBER: 07/790,690
FILING DATE: November 8, 1991
APPLICATION NUMBER: 07/963,329
FILING DATE: October 15, 1992
ATTORNEY/ABENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 02655/012W02
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPAK: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
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GENERAL INFORMATION:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%;
Matches 70; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.0
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 70 amino acids
                                                                                                                                                                                                                                                                                                 TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                               TYPE: AMINO ACID STRANDEDNESS: N/A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: N/A PCT-US92-09443A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
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                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                     1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GPETLCGAELVDALQFVCGDRGFYFNKF1GYGSSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bozyczko-Coyne, Donna
APPLICANT: Neff, Nicola
APPLICANT: Lewis, Michael E.
APPLICANT: Idpal, Mohamed
TITLE OF INVENTION: TREATING RETINAL NEURONAL
TITLE OF INVENTION: DISORDERS BY THE APPLICATION OF
TITLE OF INVENTION: NSULLIN-LIKE GROWTH FACTORS AND
NUMBER OF SEQUENCES: 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REPERENCE: P1712R1
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: US/09/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO : SEQ ID NOS: 6
SENGTH: 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 555X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/09443A
FILING DATE: 19921103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application PC/TUS9209443A GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/09723896
Patent No. 6509443
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
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MEDIUM TYPE: 3.5" Di
                                                                                                                                                               61 CAPLKPAKSA 70
                                                                                                                                                                                               61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
CRGANISM: Homo sapiens
US-09-723-896-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
PCT-US92-09443A-1
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US-09-723-896-1
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0; Gaps

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1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 17
US-07-980-844-12
Sequence 12, Application US/07989844
Fatent No. 5342763
GENERAL INFORMATION:
APPLICANT: Swartz, James
TITLE OF INVENTION: Method for Producing Polypeptide via TITLE OF INVENTION: Bacterial Fermentation
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
COUNTRY: USA
COMPUTER REAABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER REAABLE FORM:
COMPUTER SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Datin (Genentech)
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/989,844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
100.0%; Score 385; DB 1; Length 94;
Best Local Similarity 100.0%; Pred. No. 4.5e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
OPERATING SYSTEM: PC-DOS/MS-DOS
SOSTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/989,845
FILING DATE: 1921120
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: 752
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/25-1896
TELEPHONE: 415/25-1896
TELEPKAY: 415/952-9881
TELEPKAYION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
TENDAMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
TENDAMATION FOR SEQ ID NO: 28:
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CLASSIFICATION 19435
PRIOR APPLICATION 19435
PRIOR APPLICATION 19436
APPLICATION NUMBER:
FILING DATE: ATTORNEY/AGENT INFORMATION:
NAME: Haeak, Janet E.
REGISTRATION NUMBER: 28, 616
REFERENCE/DOCKET NUMBER: 811
TELECOMMUNICATION:
TELECOMMUNICATION:
TELEFAK: 415/922-1896
TELEFAK: 910/371-7168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-07-989-845-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                      RESULT 15
PCT-US95-04925-1
SQUAREAL INFORMATION:
APPLICANT:
TILLE OF INVENTION: IGF/IGFBP COMPLEX FOR PROMOTING BONE
TILLE OF INVENTION: RORMATION AND FOR REGULATING BONE
TILLE OF INVENTION: PORMATION AND FOR REGULATING BONE
CORRESPONDENCES:
ADDRESSEE: MOREISON & FORESTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
100.0%; Score 385; DB 5; Length 70;
Best Local Similarity 100.0%; Pred. No. 3.3e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
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Sequence 28, Application US/07989845

Fatent No. 5304472

GENERAL INFORMATION:

APPLICANT: Bass, Steven

APPLICANT: Bass, Steven

APPLICANT: Bass, Steven

TILLE OF INVENTION: METHOD OF CONTROLLING POLYPEPTIDE

TILLE OF INVENTION: PRODUCTION IN BACTERIAL CELLS

NUMBER OF SEQUENCES: 31

CORRESPONDENTE ADDRESS:

ADDRESSE: Genentech, Inc.

STREET: 460 Point San Bruno Blvd

CITY: South San Brancisco

CITY: South San Francisco

STATE: California
                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER TEADABLE FORM:

MEDTUM TYPE: Floppy disk
COMPUTER READABLE FORM:
MEDTUM TYPE: Floppy disk
COMPUTER: IBM PC COMPatible
OFFWARE: PATENTING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/08925
FILING DATE: NEW
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: PARK, FREDDIE K.
REGISTRATION NUMBER: 35,636
REFERENCE/DOCKET NUMBER: 35,636
RETERRENCE/DOCKET NUMBER: 220952027240
TELERPOMNICATION INFORMATION:
TELERPOMNICATION INFORMATION:
TELERPOMNICATION INFORMATION:
TELERPOMNICATION INFORMATION:
TELERPOMNICATION INFORMATION:
TELERPOMNICATION INFORMATION:
TELERPOMNICATION OF SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
TWOD: LENGTH: 70 amino acids
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MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TOPOLOGY: linear
PCT-US95-08925-1
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RESULT 19
US-08-240-121-12
US-08-240-121-12
Sequence 12, Application US/08240121
Sequence 12, Application US/08240121
Sequence 12, Application US/08240121
Sequence 12, Application US/08240121
Sequence 12, Application  
Applicant: Swartz, James
TITLE OF INVENTION: Method for Producing Polypeptide via Bacterial Fermentation
NUMBER PON SEQUENCES: 21
CONTRACT OF TABLESS:
CONTRACTOR OF TABLESS:
CONTRACTOR OF TABLESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Patent No. 5633165
GENERAL INFORMATION:
GENERAL THORMATION:
TILLE OF INVENTION: Method for Producing Polypeptide via TITLE OF INVENTION: Bacterial Fermentation NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
TTRES OF SECUENCES: ADDRESSE: ADDRESS: ADDRESS: ADDRESSE: Genentech, Inc.
TTRES OF SECUENCES: ADDRESSE: Genentech, Inc.
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYRES 5.25 inch, 360 Kb floppy disk COMPUTER: 5.25 inch, 360 Kb floppy disk COMPUTER: 5.25 inch, 360 Kb floppy disk COMPUTER: 18M PC comparible OPERATING SYSTEM: PC-DS/MS-DOS SOFTWARE: patin (Genenecch) CURRENT APPLICATION DATA: US/08/240,121 FILING DATE: 09-May-1994
FILING DATE: 09-May-1994
FILING DATE: 07/98984
FILING DATE: 23-No. 5487980-1992
ATTORNEY, AGENT INFORMATION: NAME: HABSAK, Janet E. REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: 811D1
TELECOMMUNICATION INFORMATION: TELEPHONE: 415/225-1896
                                                                                                                                                                                                                                                                                                                                         ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.0%;
Matches 70; Conservative C
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inc
61 CAPLKPAKSA 70
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TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 20
US-08-451-241-12
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Batent No. 5410026

GENERAL INPORMATION:
APPLICANT: Chang, Judy Yi-Huei
APPLICANT: Chang, Judy Yi-Huei
APPLICANT: Swartz, James R.
TITLE OF INVENTION: Method for Refolding Insoluble, Misfolded Insulin-Like Growth
NUMBER OF SEQUENCES: 12
CORRESPONDED ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STRIET: California
                                                                                                                                                                                                                                                                                                                                         25 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                      Length 94;
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                                                                                                                                                                                                                                      0; Indels
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/161,044
FILING DATE: 02-DEC-1993
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/808451
FILING DATE: 06-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: HASA, Janet E.
REGISTRATION NUMBER: 28,616
REPERENCE/DOCKET NUMBER: 729C1
TELEPHONE: 415/252-1896
TELEPHONE: 415/252-1896
TELEPHONE: 415/252-1896
TELEPANION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                 100.0%; Score 385; DB 1;
100.0%; Pred. No. 4.5e-40;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 100.0%; Score 385; DB 1; Similarity 100.0%; Pred. No. 4.5e-40; 70; Conservative 0; Mismatches 0;
                      SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
TYPE: AMINO ACID
TOPOLOGY: linear
US-07-989-844-12
                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94 amino acids
     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inc
                                                                                                                                                                                                                                                                                                                                                                                              61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                CAPLKPAKSA 94
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TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 70; Conserv
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US-08-161-044-12
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PGENUL 22

PERSON-11298-28

Sequence 28, Application PC/TUS9311298

Sequence 28, Application PC/TUS9311298

JENERAL INFORMATION: BATHOD OF CONTROLLING POLYPEPTIDE PRODUCTION IN TITLE OF INVENTION: BATHOD OF CONTROLLING POLYPEPTIDE PRODUCTION IN TITLE OF INVENTION: BATHOD OF CONTROLLING POLYPEPTIDE PRODUCTION IN TITLE OF INVENTION: BATTERIA 31

CORRESPONDENCE ADDRESS:

ADDRESSEE: Generaced, Inc.

STREET: 460 Point San Brancisco

CITY: South San Francisco

STREET: California

COUNTRY: USA

ZIP: 94080

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

CORPUTER: IBM PC compatible

CORPUTER: Datin (GeneraceA)

CORRESTI APPLICATION DATA:

APPLICATION NUMBER: PCT/US93/11298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25 GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.0%; Pred. No. 4.5e-40;
Matches 70; Conservative 0; Mismatches 0;
REGISTRATION NUMBER: 28,616
REPRENCE/DOCKET NUMBER: 811P1
TELECOMMUNICATION INFORMATION:
TELEFRONE: 415/922-1896
TELEFAX: 415/922-9881
TELEFAX: 910/371-7168
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
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CLASSIFICATION:

RIOR APPLICATION:

PRIOR APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE:

ATTORNEY/AGENT INFORMATION:

NAME: Haeak, Janet E.

REGISTRATION NUMBER: 28,616

REPERSNCK/DOCKET NUMBER: 752

TELEPHONE: 415/552-881

TELEPHONE: 415/552-881

TELEFAX: 415/552-881

TELEFAX: 910/371-7168

SEQUENCE CHARACTERISTICS:

SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85 CAPLKPAKSA 94
                                                                                                                                                                                                                                                                                                                                                                         ;
TOPOLOGY: linear
PCT-US93-11297-12
                                                                                                                                                                                                                                                                                                                                                 amino acid
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TITLE OF INVENTION: Method for Producing Polypeptide via Bacterial Fermentation
TITLE OF INVENTION: Method for Producing Polypeptide via Bacterial Fermentation
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: Callifornia
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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100.0%; Score 385; DB 1; Length 94;
Best Local Similarity 100.0%; Pred. No. 4.5e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                COMPUTER READABLE FORM:
MEDILUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER READABLE FORM:
MEDILUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER: IBM PC compatible OPERALING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Datin (Genericch)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/451,241
FILING DATE: 25-MAY-1995
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/240121
FILING DATE: 09-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/989844
FILING DATE: 23-NOV-1992
ATTORNEY AGENT INFORMATION:
NAME: Hassk, Janet E.
REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: 28,616
REGISTRATION NUMBER: P0811D2
TELEX: 910/317-7168
INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS:
LELEX: 910/317-7168
INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS:
LUMB DATA AMAINO ACIDS
SECUENCE CHARACTERISTICS:
LUMB DATA CHARACTERISTICS
SECUENCE CHARACTERISTICS
SECUENC
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ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: parin (Genentech)
GURRENT APPLICATION DATA: PCT/US93/11297
APPLICATION: PRIOR APPLICATION:
PRIOR APPLICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/989844
FILING APPLICATION DATE: APPLICATION NUMBER: NAME: Hasak, Janet E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 12, Application PC/TUS9311297
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: amino acid
; TOPOLOGY: linear
US-08-451-241-12
                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT-US93-11297-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
25 GPBILCGAELVDALQFVCGDRGFVFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 84
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Sequence 10, Application US/07953230A
Sequence 10, Application US/07953230A
SENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: CHEN, Thomas T
APPLICANT: SHAMBLOTT, Michael J
APPLICANT: SHAMBLOTT, Michael J
APPLICANT: SHAMBLOTT, MICHAEL
TITLE OF INVENTION: FROM RAINBOW TROUT
                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Crawford, Kenneth
APPLICANT: Zaror, Isabel
APPLICANT: Innis, Michael
APPLICANT: Innis, Michael
TITLE OF INVENTION: Expression
NUMBER OF SEQUENCES: 40
CORRESPONDENCES ADDRESS:
ADDRESSEE: Chiron Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Emeryville
STATE: California
COUNTRY: United States
ZIP: 94608
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: EMP PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/029,267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICALLE.
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: CLUNG, Ling-Fong
REGISTRATION NUMBER: 36,482
REGISTRATION NUMBER: 36,482
RETERENCE/DOCKET NUMBER: 1165.7
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-2704
TELEFAX: (510) 601-2704
TELEFAX: (510) 601-2704
TELEFAX: (10) 655-3542
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 118 amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                 US-09-029-267-14
Sequence 14, Application US/09029267
Patent No. 6107057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3: Chiron Corporation 4560 Horton Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: protein
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                                                                                61 CAPLKPAKSA 70
                                                                                                                                 CAPLKPAKSA 94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Pred. No. 6.8e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                 ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: George Mason Bldg., Washington & Prince Sts.
CITY: Alexandria
                                                                                                                          COUNTRY: United States
COUNTRY: United States
COUNTRY: United States
COMPUTER: Laborate Form:
MEDIUM TYPE: Floppy disk
COMPUTER: Tab PC compatible
OPERATIONS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 0STEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: Crane-Feury, Sharon E
REGISTRATION NUMBER: 028755-010
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-620
TELEPHONE: (703) 836-2021
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LINFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LINFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LYPE: amino acids
TYPE: amino acids
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LOCATION: 116
OTHER INFORMATION: /note= "Gap of 27 after 116.
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APPLICANT: Conklin, Darrell C.
APPLICANT: Lofton-Day, Catherine E.
APPLICANT: Lok, Si
APPLICANT: Lok, Si
APPLICANT: Jospers, Stephen R.
TITLE OF INVENTION: INSULIN HOWOLOG
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Zymodenetics, Inc.
STREET: 1201 Eastlake Avenue East
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 9, Application US/08950720A; Patent No. 6046028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93 CAPLKPAKSA 102
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CAPLKPAKSA 70
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OTHER INFORMATION:
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OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: Peptide
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US-08-950-720A-9
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49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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ZIP: 1910 USA
ZIP: 1910 USA
ZIP: 1910 USA
ZIP: 1910 USA
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/04329
FILING DATE: 19930507
CLASSIFICATION NUMBER: PCT/US93/04329
FILING DATE: 09-MAY-92,
ATTORNEY/AGENT INFORMATION:
NAME: MARK Delalca
REGISTRATION NUMBER: 33,229
REGISTRATION NUMBER: 33,229
REGISTRATION NUMBER: 33,229
REGISTRATION NUMBER: 33,229
REGISTRATION NUMBER: 33,239
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Sequence 1, Application PC/TUS9304329
GENERAL INFORMATION:
APPLICANT: Bradford A. Jameson and Renato Baserga
ITILE OF INVENTION: IGF-1 Analogs
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn
ADDRESSEE: Wortz Mackiewicz & Norris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STREET: PA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 385; DB 1;
100.0%; Pred. No. 7.7e-40;
iive 0; Mismatches 0;
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100.0%; Score 385; DB 5;
Best Local Similarity 100.0%; Pred. No. 7.7e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                 NATE: MATE: 
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LELBEAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 153
ATTORNEY/AGENT INFORMATION: NAME: Mark DeLuca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 CAPLKPAKSA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: amino acid
; TOPOLOGY: linear
US-08-219-878A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AMINO ACID
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PCT-US93-04329-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 GPETLICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 82
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APPLICANT: Bradford A. Jameson and Renato Baserga
TITLE OF INVENTION: 1GF-1 Analogs
TITLE OF INVENTION: 1GF-1 Analogs
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Kurtz Mackiewicz & No. 5473054ris
STREET: One Liberty Place - 46th Floor
CITT: Philadelphia
STATE: PA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE COMPUTER: IBM.PC COMPALIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WORDPERFECT 5.1
                                                                      COUNTER: 02A

ZIP: 98102

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: 1BM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FasteSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/950,720A
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/219,878A
FILING DATE: 30-MAR.1994
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/881,524
FILING DATE: 08-MAY-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-219-878A-1
; Sequence 1, Application US/08219878A
; Patent No. 5473054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Sawislak, Deborah A
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 96-
TELECOMUNICATION INFORMATION:
TELEPHONE: 206-442-6672
TELEFAX: 206-442-6678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 9: SEQUENCE CHARACTERISTICS: LENGTH: 152 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: No. 6046028e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 19103
COMPUTER READABLE FORM:
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USA
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86 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%; Pred. No. 7.8e-40;
Matches 70; Conservative 0; Mismatches 0; Indels C
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Sequence 39, Application US/08989251
Patent No. 6017731
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Sellzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
CITY: Raleigh
                     APFLICANT: Reizman, Howard
TITLE OF INVENTION: No. 5618690el DNA Molecules and Hosts
NUMBER OF SEQUENCES: 15
                                                                                                                                                                                                                                   COMPUTER READABLE FORM;
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/462,397
FILING DATE: 05-JUN-1995
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US/07/989,260
FILING DATE: 11-DEC-1992
ATTONEY/AGENT INFORMATION:
NAME: Spruill, W. MUNTRAY
REGISTRATION NUMBER: 32,943
REGISTRATION NUMBER: 32,943
REGISTRATION NUMBER: 32,943
RELECOMMUNICATION INFORMATION:
TELECHOME: 191-541.8614
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                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Clba-Geigy Corporation
STREET: 7 Skyline Drive
CITY: Hawthorne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PC-DOS/MS-DOS
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COUNTY: US
ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DC
SOFTWARE: Patentin Release #1.
     APPLICANT: Seeboth, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-462-397-8
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US-08-989-251-39
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49 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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100.0%; Score 385; DB 1; Length 155;
Best Local Similarity 100.0%; Pred. No. 7.8e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                        APPLICANT: Chaudhuri, Bhabatosh
APPLICANT: Chaudhuri, Bhabatosh
APPLICANT: Stephan, Christine
APPLICANT: Reizman, Howard
APPLICANT: Reizman, Howard
TITLE OF INVENTION: No. 5501975el DNA Molecules and Hosts
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
CARRESSEE: Clabs-desigy Corporation
STREET: 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/328,961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/989,260
FILING DATE: 11-DEC-1992
ATTORNEY AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 4-18685/A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NS-018-462-397-8
Sequence 8, Application US/08462397
Patent No. 5618630
GENERAL INFORMATION:
APPLICANT: Chaudhuri, Bhabatosh
APPLICANT: Stephan, Christine
                                                                                                                                                                                                                        5-08-328-961-8
Sequence B, Application US/08328961
Patent No. 5501975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             155 amino acids
amino acid
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                                                                                                                      109 CAPLKPAKSA 118
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                                                                         61 CAPLKPAKSA 70
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86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
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                                                                                                                                                                    1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Best Local Similarity 100.0%; Pred. No. 7.8e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                      Length 155;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 39, Application US/09528108
Patent No. 6312923
GENERAL INFORMATION:
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSER: Bell Seltzer IP Group of Alston & Bird, LLP STREET: 3605 Glenwood Ave. Suite 310 CITY: Raleigh
                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/528,108
                      Query Match
100.0%; Score 385; DB 3;
Best Local Similarity 100.0%; Pred. No. 7.8e-40;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/989,251
PLING DATE:
ATTONEEV/AGENT INFORMATION:
NAME: Spruill, W. Murzay
REGISTRATION NUMBER: 32,943
REGISTRATION NUMBER: 37,943
REGISTRATION NUMBER: 5784-4
TELEPRENCE DOCKET NUMBER: 5784-6
TELEPRENCE 519 420 2202
TELEPRENCE 519 881 3175
INFORMATION FOR SEG ID NO: 39: SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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US-09-142-583A-11
; Sequence 11, Application US/09142583A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: US
ZIP: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                   146 CAPLKPAKSA 155
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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Sequence 39, Application US/09340250
Sequence 39, Application US/09340250
Datent NO. 6083723
GENERAL INFORMATION:
APPLICANT: Tekampo-01son, Patricia
APPLICANT: Tekampo-01son, Patricia
APPLICANT: PROTEINS IN YEAST
NUMBER OF SEQUENCES:
ADDRESSPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 3605 Glenwood Ave. Suite 310 CITY: Raleigh COUNTY: NC COUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/340,250

FILING DATE:

CLASSIFICATION

PRIOR APPLICATION

APPLICATION DATA:

APPLICATION NUMBER: 08/989,251
APPLICATION NUMBER: US/08/989,251
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NAME: Spruill W. Murray
REGISTATION UNDRER: 32,943
REFERENCE/DOCKET NUMBER: 5784-
TELEPHONE: 919 420 2202
TELEPHONE: 919 420 2202
TELEPREN: 919 430 319:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
TYPE: amino acids
                                                         CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: SPUILIL, W. MUZTAY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784
TELECHONE: 919 420 2202
TELEPHONE: 919 881 3175
INFORMATION FOR SEQ ID NO: 39:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acide
TYPE: amino acid
TOPOLOGY: linear
NOLECULE TYPE: protein
US-08-989-251-39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CAPLKPAKSA 70
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86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/989,251
FILING DATE:
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COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/340,250
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; Pred. No. 9.9e-40;
0; Mismatches 0;
                                                                                                             FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INPORMATION:
NAME: Sprinil, W. Murray
REGISTRATION NUMBER: 32,943
REPERENCE/DOCKET NUMBER: 32,943
REPERENCE/DOCKET NUMBER: 5784-4
TELECOMMINICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPHONE: 191 amino acids
TYPE: mino acids
TYPE: amino acids
TYPE: 100008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/989,251
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ATTORNAY AGENT INFORMATION:
NAME: SPULII, W MULTAY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%;
Matches 70; Conservative 0
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146 CAPLKPAKSA 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CAPLKPAKSA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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           Patent No. 6221842

GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
TITLE OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREEF: 1100 NORTH GLEBE ROAD
STREEF: NOTANGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
100.0%; Score 385; DB 3; Length 156;
Best Local Similarity 100.0%; Pred. No. 7.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels (
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Patent NO. 6017731
GENERAL INFORMATION:
APPLICANT: Tekamp-01son, Patricia
ATILE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                          COMPUTER: Floppy disk
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/142,583A
FILING DATE: 29-Oct-1998
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ELECTRON COLLEGE
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRILING DATE: 11-MAR-1997
APPLICATION NUMBER: 0B 9605124.8
FILING DATE: 11-MAR-1996
ATORNEY/AGENT INFORMATION:
NAME: SADOFF, B. J.
REGISTRANCY NUMBER: 36663
REFERENCE/DOCKET NUMBER: 117-263
TELEPHONE: 7038164100
TELEPHONE: 7038164100
TELEPHONE: 7038164100
TELEPHONE TO SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 156 amino acids
TYPE: amino acid
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-142-583A-11
                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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STATE: NC
COUNTRY: US
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Gaps

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TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
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amino acid
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                                          US-09-255-829-14
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US-08-180-572-5
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                                                                                                                                                 0; Gaps
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0
                                                                                                    Query Match
100.0%; Score 385; DB 3; Length 191;
Best Local Similarity 100.0%; Pred. No. 9.9e-40;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 385; DB 4; Length 191; Best Local Similarity 100.0%; Pred. No. 9.9e-40; Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Tekamp-01son, Patricia
APPLICANT: Tekamp-01son, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEE: Bell Selrer IP Group of Alston & Bird, LLP P. 3605 Glenwood Ave. Suite 310 Raleigh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
APPLICATION DATA:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFRENCE/DOCKET NUMBER: 5784-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEFRAX: 919 881 3175
                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 41, Application US/09528108
; Patent No. 6312923
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/989,251
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amino acid
3Y: linear
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TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , MOLECULE TYPE: protein US-09-528-108-41
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STATE: NC
COUNTRY: U
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US-09-340-250-41
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US-09-528-108-41
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882 GPETLCGAELVDALGFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 941
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100.0%; Score 385; DB 4; Length 953;
Best Local Similarity 100.0%; Pred. No. 5.8e-39;
Matches 70; Conservative 0; Mismatches 0; Indels C
Sequence 14, Application US/09255829

Patent No. 6461617

GENERAL INFORMATION:

APPLICANT: Shone, Clifford Charles
APPLICANT: Quinn, Conrad Padraig
APPLICANT: Quinn, Conrad Padraig
APPLICANT: Reserv. Keith Alan

TITLE OF INVENTION: Recombinant Toxin Fragments
NUMBER OF SEQUENCES: 29

CORRESPONDENCE ADDRESS:

ADDRESSE: STERNE, KESSLER, GOLDSTEIN, & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, NW, SUITE 600

CITY: WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                 CUTIX: WASHINGTON
STATE: DC
CUNTRY: USA
ZIP: 20005-3934
COMPUTER: EDOPY disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN BATS:
APPLICATION NUMBER: US/09/255,829
FILING DATE: 23-FEB-1999
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB97/02273
FILING DATE: 22-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/782,893
FILING DATE: 27-DEC-1996
ATTORNEY, AGENT UNMBER: US 08/782,893
FILING DATE: 27-DEC-1996
ATTORNEY, AGENT UNMBER: 12-80-1996
ATTORNEY, AGENT UNMBER: 12-80-1996
ATTORNEY, AGENT UNMBER: 12-80-1996
ATTORNEY, AGENT UNMBER: 12-80-1996
ATTORNEY, AGENT UNMBER: 15-81-0130002
TELEBOND: 202-371-2600
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APPLICANT: Garret, Ian R
APPLICANT: Sabatini, Massimo APPLICANT: Izbicka, Elzbieta APPLICANT: Burgess, Wilson APPLICANT: Crumley, Gregg APPLICANT: Moore, Clarence
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Sequence 18, Application US/07947035 Patent No. 5444045
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STATE: No. 5444045th Carolina
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kenneth D. Sibley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenneth D. Sib:
STREET: P.O. Drawer 34009
  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       69; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 575102
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 CAPLKPAKAA 80
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 40
US-07-947-035-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRKAPQTGIVDECCFRSCDLRRLEMY
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Patent No. 6221842

GENERAL INFORMATION:

TITLE OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS

NUMBER OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: NIXON & VANDERHYE P.C.

STREET: 1100 NORTH GLEBE ROAD

CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
TITLE OF INVENTION: Antler-Derived Bone Growth Factors NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS: BADDRESSE: Rhone-Poulenc Rorer Legal Department STREET: 500 Arcola Road CITY: Collegeville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                   COMPUTER: ILEMPT COMPATIBLE
COMPUTER: IEM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/180,572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 382; DB 1;
Pred. No. 7.6e-40;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
RAPPLICATION NUMBER: US/09/142,583A
FILING DATE: 29-Oct.-1998
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/855,415
FILING DATE: 18-MAR-1992
ATTORNEY/AGENT INFORMATION:
NAME: GOOGMAIN, ROSENINE
REGISTRATION NUMBER: 32,534
REFERENCE/POCKET NUMBER: A0880
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 444-3817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (215) 454-3817
TELEFAX: (215) 454-380
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 98.6%;
Matches 69; Conservative
                                                                                                                                                               COUNTRY: USA
ZIP: 19426
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : 70 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , MOLECULE TYPE: peptide US-08-180-572-5
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.2%; Score 382; DB 3; Length 121; 98.6%; Pred. No. 1.4e-39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Francis, Geoffrey L.
APPLICANT: Walton, Paul E.
APPLICANT: Walton, Paul E.
APPLICANT: McMurty, John P.
APPLICANT: Phelps, Patricia V.
TITLE OF INVENTION: Method of Administering IGF-1, IGF-2,
TITLE OF INVENTION: and Analogs Thereof to Birds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: PAPLICATION DATA: PAPLICATION NUMBER: US/07/947,035 FILING DATE: 17-SEP-1992 CLASSIFICATION: 514 ATTORNEY/AGENT INPORMATION: NAME: Sibley, Kenneth D. REGISTRATION NUMBER: 31,665 REFERENCE/DOCKET NUMBER: 5175-59 TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION 1999 881-3140
PRIOR A PELICATION WINEER: WO PCT/GB97/00658
FILING DATE: 11-MAR-1997
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: SADOFF; B. J.
REGISTRATION NUMBER: 36663
REFERENCE/DOCKET NUMBER: 317-263
TELEPHONE: 7038164000
TELEPHONE: 7038164100
TELEPHONE: 3038164100
TELEPHONE: 7038164100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1 0
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1 GPETLCGARLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                       Query Match

98.7%; Score 380; DB 1; Length 83;
Best Local Similarity 98.6%; Pred. No. 1.6e-39;
Matches 69; Conservative 0; Mismatches 1; Indels
: LENGTH: 83 amino acids

: TYPE: amino acid

: STRANDEDNESS: single

: POPOLOGY: linear

: MOLECTLE TYPE: protein

: HYPOTHETICAL: NO

US-07-947-035-18
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Search completed: February 25, 2004, 06:25:56 Job time : 18.8613 secs

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February 25, 2004, 06:17:27; Search time 51.0949 Seconds (without alignments) 387.090 Million cell updates/sec
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385
1 GPETLCGAELVDALQFVCGD......SCDLRRLEMYCAPLKPAKSA 70
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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                                                                                                                                                                                                                                                                                                                               1586107 segs, 282547505 residues
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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1: geneseqp1980s:*
2: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2001s:*
6: geneseqp2003s:*
7: geneseqp2003bs:*
8: geneseqp2003bs:*
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Maximum DB seq length: 200000000
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Perfect score:
Sequence:
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                                                                                                                    Run on:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		æ					
Result No.	Score	Query	Length	DB	di.	Description	Ę.
	385	100.0	70	Н	AAP40034	4	Sequence
7	385	100.0			AAP71539	თ	Sequence
m	ø	100.0			AAP70414	٠,	Sequence
4	æ	100.0			AAP91502	cv	New insul
ഹ	æ	100.0			AAR36846		Insulin-1
φ	385	100.0	70		AAR41774	Aar41774 hJ	hIGF-I. 3
7	385	100.0	70		AAR43606	Aar43606 Pe	Peptide d
æ	385	100.0			AAR55275	Aar55275 Se	Sequence
σ	œ	100.0			AAR48590	Aar48590 Hu	Human IGF
10	385	100.0			AAR75657	Aar75657 Hu	Human ins
11	385	100.0	70	~	AAR89949	Aar89949 Re	Recombina
12	œ	100.0	70		AAR86874	Aar86874 Ir	Insulin l
13	385	100.0			AAR87744	Aar87744 Wi	Wild type
14	385	100.0			AAW33907	Aaw33907 Pe	Peptide d
15	385	100.0			AAW12342	Aaw12342 Hu	Human mat
16	œ	100.0	,		AAB09616	Aab09616 Ir	Insulin l
17	385	100.0	70		AAY88577	Aay88577 Ne	Native hu
138	ထ	100.0	70		AAY84871	-	Amino aci
19	ထ	100.0	70		AAB12769	_	Human ins
20	385	100.0	70		AAB12772	-	Human ins
21	œ	100.0			AAB35948	8	IGF-1A am
22	385	100.0			AAB35949	Aab35949 IC	IGF-1B am
23	385	100.0	70	ın	AAE18374	Aae18374 Hu	Human mat
24	æ	100.0	70	ഗ	AAM48217	Aam48217 Ht	Human ins
25	385	100.0	70	Ŋ	AAE27890	Aae27890 Hu	Human cod

Human c	Aab71497 Human IGF	Abg76349 Human ful	Aau90781 Insulin/i	Aao16314 Insulin-l	Aap50872 Synthetic		~	Aar21709 Insulin-l	Aag62611 Human ins	Aar63194 Insulin-l	Aar13759 Beta-gal/	Aar41776 Modified	m		Aap40026 Fusion pr	Aap40024 Short fus	Aar53782 IGF-1 fus	Aar51474 lamB sign	Aar37549 Sequence	
5 AAE28004	5 AAB71497	5 ABG76349	5 AAU90781	6 AAO16314	1 AAP50872	1 AAP81203	2 AAR05281	2 AAR21709	4 AAG62611	2 AAR63194	2 AAR13759	2 AAR41776	2 AAR13758	1 AAP81213	1 AAP40026	1 AAP40024	2 AAR53782	2 AAR51474	2 AAR37549	
70	70	70	70	70	71	7.1	71	71	71	72	74	75	96	78	83	90	94	94	95	
385 100.0	385 100.0	1	385 100.0	10		385 100.0	10	385 100.0		385 100.0		385 100.0				385 100.0	Н	385 100.0	385 100.0	
26	27	28	56	30	31	32	33	34	35	36	37	œ	. m	0 4	41	42	43	4.4	4.5	

ALIGNMENTS

RESULT

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Human insulin like growth factor I prodn. - by oxidising reductive human insulin-like growth factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                    The production of IGF-I-A by oxidising reductive human insulin-like growth factor in a buffer soln. and separating I-A from the reaction soln. is improved by the presence of an organic solvent which can dissolve in the buffer soln. in the reaction system. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Insulin-like growth factor-1; IGF-1; derivative; disulphide bond;
growth promoter; tissue repair.
                                                           Sequence of oxidative human insulin-like growth factor I (IGF-I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 385; DB 1; Length 70; 100.0%; Pred. No. 2.8e-33; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New insulin-like growth factor-1 (IGF-I) deriv.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note= "Bonded to Cys-47"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note= "Bonded to Cys-61"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'note= "Bonded to Cys-6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP91502 standard; peptide; 70 AA
                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 935; 6pp; Japanese.
                                                                                                                                                                                                                                                                                                (FUJI ) FUJISAWA PHARM CO LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%;
Matches 70; Conservative (
                                                                                                                                                                                                                                   86JP-00031512.
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                  (revised)
(first entry)
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(first entry)
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                                                                                                            Hormone; sanatomedin
                                                                                                                                                                                                                                                                                                                          WPI; 1987-273817/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 70 AA;
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Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disulfide-bond
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                                                                                                                                                                        JP62190199-A.
                                                                                                                                                                                                                                     14-FEB-1986;
                  25-MAR-2003
19-FEB-1991
                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                  14-FEB-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unidentified
                                                                                                                                                                                                       20-AUG-1987.
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06-JUN-1990
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                                                                                type).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The IGF-I (and its salts) has strong effect for acceleration of thymidine incorporation into animal cells, suggesting that it has strong growth promoting effect. However it has no blood sugar lowering effect. (Updated on 10-MAR-2003 to add missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
Human insulin-growth factor, which has a new prim. structure - is prepd. by oxidising reduced form IGF-I and treating the obtd. cpds. by e.g. chromatography, and is used for incorporating thymidine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                   Sequence of human insulin-like growth factor I (IGF-I).
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100.0%; Score 385; DB 1;
Best Local Similarity 100.0%; Pred. No. 2.8e-33;
Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                            70 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 1; 6pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (FUJI ) FUJISAWA PHARM CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86JP-00011280.
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                                                                                                                                                              AAP71539 standard; protein;
                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                Hormone; growth promoter
                                                                                                                                                                                                                                                                                                                                                                                              6. .47
18. .61
48. .52
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                                                 CAPLKPAKSA 70
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Disulfide-bond
Disulfide-bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JAN-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JAN-1986;
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                                                                                                                                                                                                                         25-MAR-2003
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                                                                                                                                                                                                                                                       26-MAY-1991
                                                                                                                                                                                          AAP71539;
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RESULT 3 AAP70414

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The sequence is that of human insulin-like growth factor (IGF)-I which promotes the survival of retinal neuronal cells. It can be used for the treatment of retinal neuronal tissues which are suffering from the effects of injury, ageing and/or disease such as photodegeneration, trauma, axotomy, neurotoxic-excitatory degeneration, ischemic neuronal degeneration, inherited retinal dystrophy, diabetic retinopathy, Alzheimer's disease, infantile mailgnant osteopetrosis, ceroid lipotuscosis or cholestasis. (Updated on 25-MAR-2003 to correct PN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; insulin-like growth factor; hIGF-1; reading frame;
secretory signal; transcription; regulation; vector; host cell; yeast;
IGF-II; "pre"-IGF.
                                                                                                                                                                                                                                                                                                                                                                                                 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                        1 GPETILCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prodn. of human IGF in unicellular host cells, used as a biologically
                                                                                                                  Use of IGF-I or IGF-II or their functional derivs. - for treating disorders characterised by death and/or dysfunction of retinal cells.
                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.0%; Score 385; DB 2; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.8e-33;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Urdea MS;
                                                                Igbal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mullenbach G,
                                                                Lewis ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR41774 standard; protein; 70 AA.
                                                                                                                                                            Example; Page 50; 97pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93EP-00101654.
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84EP-00104175.
91US-00790690
92US-00963329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Barr PJ, Merryweather JP,
                                                                 Neff N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (revised)
(first entry)
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                                       (CEPH-) CEPHALON INC
                                                                                           WPI; 1993-167389/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAPLKPAKSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAPLKPAKSA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1993-296480/38.
N-PSDB; AAQ48492.
                                                                 Bozyczko-Coyne D,
                                                                                                                                                                                                                                                                                                                        Sequence 70 AA;
08-NOV-1991;
15-OCT-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
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25-MAR-1994
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                                                                                                                                                                                                                                                                                              field.)
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ID AAR
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                                                                                                                                                                                                                                                                                                                                                         The deriv. or salt is produced by oxidation of the AAP91502. IGF-I deriv. has growth promotion action only. It is used as a medical compsn. for promoting growth or repairing tissue. (Updated on 25-MAR-2003 to correct PA field.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IGF-1, disorder, treatment, survival, retinal neuronal cells, promotion, injury, ageing, disease, photodegeneration, trauma, axotomy; neurotoxio-excitatory degeneration, diabetic retinopathy; ischemic.neuronal degeneration, inherited retinal dystrophy; Alzheimer's disease; infantile malignant osteopetrosis; cholestasis;
                                                                                                                                                                                                                                                                       New insulin-like growth factor-I deriv. - prepd. by applying oxidn. to specific peptide, used as medical compsn. for promoting growth or repairing tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GPETLCGAELVDALQFVCGDRGFYFNKPIGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                            /note= "Ala-NH2 or Ala-OH"
 /note= "Bonded to Cys-52"
52
                             /note= "Bonded to Cys-48"
                                                       'note= "Bonded to Cys-18"
                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 1; 8pp; Japanese.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR36846 standard; peptide; 70
                                                                                 /label= OTHER
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                                                                                                                                                                            87JP-00222735
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                                                                                                                                                                                                                                (SUMU ) SUMITOMO SEIYAKU KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 CAPLKPAKSA 70
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                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 70 AA;
                  Disulfide-bond
                                         Disulfide-bond
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                                                                                                                         JP01066199-A
                                                                                                                                                                            04-SEP-1987;
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02-SEP-1993
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Gaps ; 0

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Query Match
Best Local Similarity 100.(
Matches 70; Conservative
                                                                                                                                                                                                                     Lewis ME, Kauer JC,
Igbal M;
                                                                                                                                                                                                               (CEPH-) CEPHALON INC.
                                                                                                                                                                                                                                WPI; 1993-351361/44.
                                                                     Sequence 70 AA;
                                                                                                                                                                                              14-APR-1993;
                                                                                                                                                                                                        07-0CT-1992;
                                                                                                                                                                                                     15-APR-1992;
                                                                                                                                                                                 WO9320836-A1
                                                                                                                                            25-MAR-2003
10-MAY-1994
                                                                                                                                                                                        28-OCT-1993
                                                                                                                                                                          Synthetic,
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The IGF muteins of the invention are produced by modifying wt IGF, esp. at the N-terminus. The sequence of IGF-1 starting from the N-terminal end is given in ARR55275. In the examples, four muteins of IGF-1 were constructed. Three of the muteins replaced each of the first three AAs of IGF-1 with a Cys. These muteins are referred to as C1, C2 and C3 are spectively (AAQ65692, AAQ65694). The fourth mutein introduced a Cys between the N-terminal Med the first AA of IGF-1. This mutein is referred to as -1C (AAQ65691). (Updated on 25-MAR-2003 to correct PN
                                     The sequence is that of a fragment of insulin-like growth factor II (IGF-
II). The synthetic peptide can be used to enhance the survival of
neuronal cells in a mammal that are at risk of dying or to treat a head
or spinal cord injury, or to enhance neurite regeneration in a mammal, or
to treat stroke, epliepsy, age-related neuronal loss, amylotropic lateral
sclerosis and Parkinson's disease. See also AAR43590-645. (Updated on 25-
MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polyethylene glycol conjugates of insulin-like growth factor muteins - including new muteins with a free cysteine in the N-terminal region.
                                                                                                                                                                                                                                                                                                                                                                  1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                               1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                           Length 70;
                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                         100.0%; Score 385; DB 2;
100.0%; Pred. No. 2.8e-33;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence of insulin-like growth factor (IGF-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insulin-like growth factor; IGF-1; mutein; ss.
  Disclosure; Page 81; 119pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 8; 32pp; English.
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100.0%;
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(first entry)
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Matches 70; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SYND ) SYNERGEN INC.
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Best Local Similarity
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                                                                                                                                                                                                                                 Sequence 70 AA;
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29-DEC-1994
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                                                                                                                           This sequence represents human insulin-like growth factor I (hIGF-I). The DNA encoding this sequence was joined in proper reading frame with a secretory leader and processing signal sequences recognised by host cells to form a structural gene downstream from and under the transcriptional regulatory control of a transcription initiation region in a vector compatible with the chosen host cells. The prepared vector may be used in the efficient production of hIGF-I by unicellular host cells, esp. yeast way be used in medicaments. The synthetic coding sequence, pref. containing host-preferred codons, is joined in the same reading frame to secretion and processing signals which allow "pre".IGF to be secreted by the host. This facilitates purification. (Updated on 25-MAR-2003 to correct PN field.) (Updated on 25-MAR-2003 to (Updated on 25-MAR-2003) (Updated
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active medicament - by joining IGF genes to a secretory leader and processing signal sequences recognised by host then introducing vector into cells for growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 385; DB 2; Length 70; 100.0%; Pred. No. 2.8e-33; ive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide derived from insulin-like growth factor.
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                                                                                                Claim 1; Page 20-21; 30pp; English
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Matches

RESULT 9 AAR48590

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A fusion protein (AAR66762) comprises a protecting peptide (AAR75658) which has a methionine residue as its C-terminal amino acid, fused to insulin-like growth factor I (IGF-I) via the methionine residue. The gene encoding the fusion protein may be used in the construction of expression vectors, which in turn can be used for the transformation of suitable microbial host calls. The polycistronic gene allows the efficient preparation of IGF-I. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Escherichia coli; plasmid pER10088; vector; osteogenic;
insulin-like growth factor binding protein-3; bone; osteoporosis;
hypophosphataemia; hyperthosphataemia; diabetes mellitus;
anorexia nervosa; cadmium poisoning; Paget disease; osteoarthritis;
                                                                                                                                                                                                   Polycistronic gene; insulin-like growth factor I; IGF-I; cistron; protecting peptide; recombinant production.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene coding for human insulin-like growth factor I (IGF-I) fused protecting peptide - for preparation of IGF-I.
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                                                                                                                                                     Human insulin-like growth factor I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 2; 11pp; Japanese.
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86JP-00214736.
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hes 70; Conservative
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                                                                          25-MAR-2003
30-AUG-1995
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Specific binding molecules which enhance insulin like growth factor-I activity - for use in treating or preventing conditions in which IGF-I is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antibodies and other specific binding molecules which bind to insulin-
like growth factor-I (IGF-I), particularly the 1-17, 18-21, 22-37, 45-53,
54-60 or, especially, the 36-44 region, potentiate or enhance IGF-I
activity. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
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                                                   GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 385; DB 2; Length 7. 100.0%; Pred. No. 2.8e-33; Live 0; Mismatches 0; Indels
0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1. .70
/note= "1-70 region of human IGF-I"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IGF-I; insulin-like growth factor-I; somatomedin-c.
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 28; 103pp; English.
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                                                                                                                                                                                                                                                                                                                                                        AAR48590 standard; peptide; 70 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AGRI-) AGRIC & FOOD RES COUNCIL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93WO-GB001774.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
(first entry)
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Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human IGF-I peptide 1-70.
     70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CAPLKPAKSA 70
                                                                                                                                                              61 CAPLKPAKSA 70
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                                                                                                                                                                                                              61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bates PC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1994-083113/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9404569-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
15-AUG-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03'-MAR-1994.
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                                                                                                                                                                                                                                                                                                                                                                                                               AAR48590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful
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AAR75657
ID AAR756
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The present sequence is an insulin like growth factor I (IGF-I). A plasmid carrying a S'-upstream nucleotide sequence contg. a promoter, part of, or the whole of the silkworm nuclear polyhedroats virus (BmNPV) structural polyhedron gene, the structural gene for a desired protein, i.e. an IGF-I gene and a 3'-downstream nucleotide sequence contg. a BmNPV terminator can be used to transfect a silkworm host, resulting in the expression of the desired protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence represents the wild type insulin-like growth factor-1 (IGF-1) sequence. This sequence is modified to produce the muteins of the invention (represented by ARR95832-R95844). The muteins created, contain a non-native cystein residue substituted for one of the first (or last) four amino acid residues of this sequence. Polyethylene glycol (PEG) conjugates are then created from the muteins, where the PEG is attatched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Insulin-like growth factor-1; IGF-1; polyethylene glycol; PEG; triflate;
IGF-1/PEG conjugate; maleimide; sulphydryl; thiol; tresylate; aziride;
exirane; 5-pyridyl; therapy; dwarfism; diabetes; periodontal disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conjugates for treatment of, e.g. dwarfism, diabetes, or osteoporosis - comprising polyethylene glycol attached to mutein of IGF at free
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GPBTLCGAELVDALGFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLENY
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                   Recombinant silkworm nuclear polyhedrosis virus contg. foreign gene useful for production of heterologous proteins in silkworms.
                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 385; DB 2; Length 70; 100.0%; Pred. No. 2.8e-33; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure, Page 8; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR87744 standard; protein; 70 AA.
                                                                                                        Example 1; Fig 13; 11pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94US-00248273
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Best Local Similarity
Local Similarity
Local Similarity
Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-020360/02.
N-PSDB; AAT07075.
                                                                                                                                                                                                                                                                                                                             Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                osteoporosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9532003-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-1995.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR87744;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence corresponds to human recombinant insulin-like growth factor-
1 (somatomedin-C). The protein may be produced by expression in
Bscherichia coli K-12 W3110, using plasmid pER10088, a plasmid pJU1003
derivative. The protein may be used along with insulin-like growth factor
binding protein-3 in an osteogenic composition to stimulate bone
formation in subjects with bone loss resulting from a bone marrow or
connective tissue disorder, drug-related osteoporosis, pregnancy,
lactation, chronic hypo- or hyperphosphataemia, diabetes mellitus,
anorexia nervosa, cadmium poisoning, juvenile osteoporosis, Paget
disease, periodontal disease or osteoarthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                  Stimulating bone formation using insulin-like growth factor-I and its binding protein - for treating bone loss due to bone marrow disorders, drug-related osteoporosis, periodontal disease, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 100.0%; Score 385; DB 2; Length 70 Local Similarity 100.0%; Pred. No. 2.8e-33; No. 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                            Adams SW;
                                                                                                                                                                                                                                                                                                                                                                                                                         Example 3; Page 62-63; 97pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR86874 standard; protein; 70 AA
                                                                                                                                                                                                                                               Rosen DM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Insulin like growth factor I.
                                                                                                                                                     94US-00278456
                                                                                                            95WO-US008925
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                                                                                                                                                                                                  (CELT-) CELTRIX PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAPLKPAKSA 70
                                                                                                                                                                                                                                               Bagi CM, Brommage R,
                                                                                                                                                                                                                                                                                         WPI; 1996-105855/11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 70 AA;
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                            WO9602565-A1
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                                                                                                               13-JUL-1995;
                                                                                                                                                       20-JUL-1994;
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to the non-native cystein residue. The PEG is attached to the free cystein through an activating group selected from maleimide, sulphydryl, thiol, triflate, tresylate, aziride, exirane or 5-pyridyl. The conjugates can also comprise a second polypeptide attached to the PEG. The conjugates may be used for the treatment of IGF associated conditions, such as dwarfism, diabetes, periodonnal disease or osteoporosis. molecular weight, and an extended circulating half life in comparison to wild type IGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to increase
                                                                                                                                                                                                                                                                                                      1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Insulin-like growth factor; IGF; IGF-1; insulin; IGF-1 receptor; 11gand inhibitor; IGF-1 analogue; IGF binding protein; IGFBP; IGF-responsive condition; IGF-I level.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide derived from human insulin-like growth factor-1 (IGF-1).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ligand inhibitor of insulin-like growth factor binding - used t
level of free growth factor and treat growth factor-responsive
                                                                                                                                                                                                                           100.0%; Score 385; DB 2; Length 70;
100.0%; Pred. No. 2.8e-33;
rative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (NEUR-) NEUROCRINE BIOSCIENCES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 19; 35pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Behan D, Ling N, Liu X,
                                                                                                                                                                                                                                                   Local Similarity 100. es 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                               61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1997-526402/48
                                                                                                                                                                                             Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               409739032-A1
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                                                                                                                                                                                                                                   Query Match
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Matches
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AAW33907
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Human insulin-like growth factor I (IGF-I) (AAW12342) is a known mitogen and growth factor which, when formulated with insulin-like growth factor binding protein 3 (IGFPB-3) (see also AMM12343-44), has greater effect when applied topically to wounds, or is free of hypoglycaemic activity when administered parenterally. IGF-I may be produced in transformed host cells, pref. B. coll, opt. as a fusion protein with yeast ubiquitin (see also AAT59189). A complex of IGF-I and IGFBP-3 is formed by: denaturing a mixt. of the 2 proteins; reducing the mixt.; and adding an oxidizing a mixt. of the complex. By co-folding IGF-I and IGFBP-3, significantly higher yields of both proteins in correctly folded form are achieved (almost 100% for IGF-I) and refolding is usually complete within I-3 hr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Insulin-like growth factor I; IGF-I; mitogen;
insulin-like growth factor binding protein 3; IGFBP-3; protein refolding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
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Alzheimer's disease, demyelinating disease, multiple sclerosis, muscular dystrophy, stroke or neuronal degeneration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                  1 GPETLOGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                             1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Prepn. of complex of native insulin-like growth factor and binding protein - by denaturing, reducing and refolding, by oxidn. of both components together, to increase speed of refolding and improve yield.
                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
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Best Local Similarity 100.0%; Pred. No. 2.8e-33;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                 Indels
                                                                                 100.0%; Score 385; DB 2;
100.0%; Pred. No. 2.8e-33;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Human mature insulin-like growth factor-I.
                                                                                                                                                                                                                                                                                                                                           AAW12342 standard; protein; 70 AA.
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                                                                  Query Match
Query Local Similarity
Best Local Similarity
Conservative
70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-1997 (first entry)
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                                                                                                                                                                                                                                                       CAPLKPAKSA 70
                                                                                                                                                                                                                         CAPLKPAKSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ogawa Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-099914/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 70 AA;
                                                      Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                               AAW12342;
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                                                                                                                                                                                                                                                                                                              RESULT 15
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The present invention describes an isolated peptide (A) comprising an insulin like growth factor (IGF) binding domain of an IGF-binding protein (IGFBP) or its modification. (A) binds IGF with at least the same binding caffinity as the full length IGFBP. A peptide from the present invention can have cytostatic, vasotropic, antidiabetic, antiParkinsonian, neuroprotective, osteopathic, antidiatetic, vulnerary and tranquilliser activities. The peptide is an IGF inhibitor, IGF antagonist and can be used in gene therapy. The peptide and antagonists from the present invention are useful for the treatment or prevention of cancer or diabetic complications, and for treating ischemic injury. Other diseases or injuries that can be treated with the fragment or antagonist include neurologic diseases and injuries, e.g. Parkinson's disease, amyotrophic lateral sclerosis, head trauma or multiple sclerosis, osteoporosis or arthritis. The biotinylated IGF is useful in therapeutic assays for IGFBP and in screening for IGFBP—mimetics (e.g. IGF antagoniste). AAB09773 represent amino acid sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                         Human; insulin like growth factor; IGF; IGFBP; binding domain; insulin like growth factor binding protein; diabetic complication; ischaemic injury; antagonist; modification; gene therapy; cytostatic; avsotropic; antidiabetic; antiParkinsonian; neuroprotective; osteopathic; antiatthritic; vulnerary; tranquilliser; neurologic disease; head trauma; Parkinson's disease; amyotrophic lateral sclerosis; authritis.
1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated peptide having an insulin-like growth factor domain of an insulin-like growth factor binding protein, useful for treating or preventing cancer or diabetic complications, or for treating ischemic injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 100.0%; Score 385; DB 3; Length 70; Similarity 100.0%; Pred. No. 2.8e-33; 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                           Insulin like growth factor 1 amino acid sequence - Fig 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure, Fig 3; 106pp; English.
                                                                                                                                                                                AAB09616 standard; protein; 70 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US023839.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rosenzweig SA, Horney MJ;
                                                                                                                                                                                                                                                                      01-SEP-2000 (first entry)
                                           CAPLKPAKSA 70
                                                                        CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-339652/29.
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Best Local Similarity
Matches 70; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancers of the breast, lung and prostate using null insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents the native human insulin-like growth factor-I (IGF-I) amino acid sequence. IGF-I mediates the effects of the growth hormones, and circulates with insulin-like growth factor binding protein-3 (IGFBP-3). The administration of null IGF-I to a cancer patient, can be used as a method for alleviating the symptoms of cancer (or slowing the progression of cancer). In an example of the method, ¥60L IGF-I is used as null IGF-I. The null IGF-I has reduced receptor binding affinity. The method is preferably used to treat breast, prostate, colon and/or lung cancer. The use of null IGF-I to treat cancer avoids the side effects associated with conventional chemotherapy such as alopecia, leukopaenia
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                          Insulin-like growth factor; IGF-1; human; alleviate symptom; treatment; cancer; breast; prostate; colon; lung; alopecia; leukopaenia; mucositis; null IGF-1.
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                                                                                                                                                                                                                                                         Native human insulin-like growth factor I (IGF-I) protein sequence.
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Pred. No. 2.8e-33;
; Mismatches 0;
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Best Local Similarity 100.0%; Pred. No. 2.8
Matches 70; Conservative 0; Mismatches
                                                                                                                                                               AAY88577 standard; protein; 70 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US022681.
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                                                  61 CAPLKPAKSA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 70 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mascarenhas D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Treating cance growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and mucositis
                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                              10-AUG-2000
                                                                                                                                                                                               AAY88577;
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us-10-066-009a-1.rag

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Alleviating symptoms of non-thyroid disorders such as amyotrophic lateral sclerosis or autoimmune disease, comprises administration of insulin-like growth factor with thyroid axis agonist or antagonist.
                                                                  Amino acid sequence of native human insulin growth factor-1 (IGF-1).
                                                                                     Insulin growth factor-1; IGF-1; non-thyroid disorder; IGFBP-3; insulin-like growth factor binding protein; neurological disorder; thyroid axis agonist; IGF-dependent disorder; pulmonary disorder; growth disorder; gastrointestinal disorder; cancer cachexia; steroid-induced catabolism; bone disorder; reproductive disorder; haematopoietic disorder; glucose homeostasis.
AAY84871 standard; protein; 70 AA
                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 1; 22pp; English
                                                                                                                                                                                                                                                               98US-0102790P.
99US-00399134.
                                                                                                                                                                                                                                       99WO-US022761
                                            (first entry)
                                                                                                                                                                                                                                                                                               (CELT-) CELTRIX PHARM INC
                                                                                                                                                                                                                                                                                                                                               WPI; 2000-317646/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 70 AA;
                                                                                                                                                                                             WO200020024-A2
                                                                                                                                                                                                                                                                                                                         Mascarenhas D;
                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                         29-SEP-1999;
                                                                                                                                                                                                                                                                 02-OCT-1998;
                                                                                                                                                                                                                                                                          20-SEP-1999;
                                            08-AUG-2000
                    AAY84871;
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The present sequence represents a human insulin growth factor-1 (IGF-1) protein. The specification describes a method for alleviating symptoms of a non-thyroid disorder which responds to IGF or insulin-like growth factor binding protein (IGFB-3). The method comprises administering IGF or IGFBF-3 (as appropriate) with a thyroid axis agonist to a patient. Administration of a thyroid axis agonist IGF enhances the actions of IGF. Administration of a thyroid axis antagonist with IGFBF-3 enhances the anti-mitoric and pro-apoptotic activities of IGFBF-3 enhances the symptoms of non-thyroid disorders. The methods are useful for alleviating the symptoms of non-thyroid disorders or an IGF-dependent disorder, neurological disorders, pulmonary disorders, growth disorders, recovery incume bodily insults, gastrointestinal disorders, cancer cachexia, steroid induced catabolism, bone disorders, reproductive disorders, haematopoletic disorders, and disorders of glucose homeostasis 'Match 100.0%; Score 385; DB 3; Length 70; Local Similarity 100.0%; Pred. No. 2.8e-33; les 70; Conservative 0; Mismatches 0; Indels Query Match Best Loc Matches

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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                    1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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AAB12769 standard; protein; 70 AA AAB12769 RESULT 19
AAB12769
ID AAB12'
XX
AC AAB12'

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Human, insulin-like growth factor 1, IGF-1, proinsulin, insulin, mutant, variant, insulin-like growth factor binding protein; IGFBP-1; IGFBP-3; antidabetic, neuroprotective, anorectic; tranquilliser, vulnerary, anorectic; cardiant; nephrotropic, dermatological, antiHTV, antiViral, hyperglycaemia; obesity; lung disease, glomerulonephritis; interstitial nephritis; Turner's syndrome; Laron's syndrome; short stature; increased fat mass-to-lean ratio; immunological disorder; peripheral neuropathy; multiple sclerosis; muscular dystrophy; catabolic state; trauma; wounding; infection; HIV; skin disorder; kidney disorder; whole body growth disorder.
Human insulin-like growth factor 1 protein SEQ ID NO:1.
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(first entry)

Homo sapiens

WO200040612-A1.

13-JUL-2000.

05-JAN-2000; 2000WO-US000151

99US-0115010P. 06-JAN-1999;

(GETH) GENENTECH INC.

Dubaquie Y, Lowman H;

WPI; 2000-465955/40.

Novel insulin-like growth factor (IGF) 1 mutants that selectively bind to IGF binding protein (IGFBP)-1 or IGFBP-3, used to improve the half-lives of IGF-I and insulin.

Disclosure; Page 44; 48pp; English.

The present invention describes an insulin-like growth factor (IGF)-1

24, 25, 43, 49 or 63, optionally in combination with an amino acid at

24, 25, 43, 49 or 63, optionally in combination with an amino acid at

position 12 and/or 16 of the native human IGF-1 sequence, is replaced

with an alamine, glycine, or a serine residue. The residue at position 7

may be replaced by any amino acid. (1) can have antidiabetic, cardiant,

neuroprotective, anorectic, tranquilliser, valuesary, anorectic,

nephrotropic, dermatological, antiHIV and antiviral activities. The IGF-1

mutants are used in any methods where IGFs or insulin are used, e.g. in

treating hyperglycaemia, obesity-related, neurological, cardiac, renal,

immunological, and anabolic disorders. These disorders include lung

ci meannel short stature, increased fat mass-to-lean ratios;

immunological disorders, peripheral neuropathy, multiple solerosis,

com with any disorders, and whole body growth disorders, heart

dysfunctions, kidney disorders, and whole body growth disorders. They can

also be used for increasing serum and tissue levels of biological active

I and insulin a mammal. The IGF-1 mutants improve the half-lives of IGF
I and insulin. The present sequence represents the native human IGF-1

Sequence 70 AA;

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Query Match 100.0%; Score 385; DB 3; Length 70; Best Local Similarity 100.0%; Pred. No. 2.8e-33; Matches 70; Conservative 0; Mismatches 0; Indels
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9 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY

70 61 CAPLKPAKSA

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Matrix for controlled release of growth factor for wound healing, has substrate that attaches heparin binding peptide, protein growth factor that bind heparin with low affinity, and heparin or heparin-like polymer.
                                                                                                                                 Heparin binding; vascular graft; matrix; cell adhesion; growth factor; wound healing; dermal wound; wound healing; IGF-1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 5; Page 21; 48pp; English.
              AAB35948 standard; protein; 70 AA
                                                                                                                                                                                                                                                                                                                                     (ETHZ-) ETH ZURICH & UNIV ZURICH.
                                                                                                      GF-1A amino acid sequence
                                                                         26-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                    Sakiyama SE, Hubbell JA;
                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-024627/03.
                                                                                                                                                                                                             WO200064481-A1.
                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                        22-APR-1999;
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                                             AAB35948;
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d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes an insulin-like growth factor-1 (IGP-1) act ariant (I) where the amino acid at position 16, 25, or 49 or the amino acid residues at positions 3 and 49 of the native-sequence of human IGF-1 are replaced with an alanine, a glycine or a serine residue. Also described are: (1) a method for treating a disorder characterised by disregulation of the GH (growth hormone)/IGF axis in a mammal comprising administering (I); and (2) a kit for carrying out the method of (1). (1) can have cardiant, nephrotropic, hepatotropic, anabolic and antidiabetic antivities. The IGF-1 variant is useful for treating disorders such as a hyperglycaemic disorder, a renal disorder, congestive heart failure, hepatic failure, poor nutrition, a wasting syndrome, or a catabolic state where IGFBP-1 (IGF binding protein) levels are increased relative to the levels in a mammal without the disorder. The present sequence represents the native human IGF-1 protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insulin-like growth factor (IGF) variants binding to IGF binding protein 1 and 3 (IGFBP-1 and 3), useful for the treatment of various disorders such as renal disorders and congestive heart failure.
                                                                                                                                                                                             Human, insulin-like growth factor 1; IGF-1; proinsulin; insulin; mutant; variant; cardiant; nephrotropic; hepatotropic; anabolic; antidiabetic; hyperglycaemic disorder; renal disorder; hepatic failure; congestive heart failure; poor nutrition; wasting syndrome; IGFBP-1; insulin-like growth factor binding protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           th 100.0%; Score 385; DB 3; Length 70; Similarity 100.0%; Pred. No. 2.8e-33; 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                 Human insulin-like growth factor 1 protein SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lowman HB, Mortensen DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure, Page 56; 62pp; English.
                                                                            AAB12772 standard; protein; 70 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                99US-0115010P.
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                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dubaquie Y, Fielder PJ,
 61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                        WO200040613-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                06-JAN-1999;
09-DEC-1999;
                                                                                                                                                                                                                                                                                            Homo sapiens
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                                                                                                          AAB12772;
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99WO-IB000800. 99WO-IB000800.

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This invention relates to a matrix comprising a substrate capable of providing attachment of a heparin binding peptide (HBB), a peptide comprising a binding domain which bindis heparin with high affinity, comprising the high peptide fragment which has a domain that binds heparin with how affinity. Included in the invention is a vascular graft comprising the matrix, included in the invention is a vascular graft comprising the matrix, complicies in a controlled manner suitable for wound healing. The matrix can be used in an article for treating dermal wounds, and in an implantable sterilized composition capable of supporting call adhesion. The present sequence represents a growth factor protein is used in an example illustrating that non-heparin-binding growth factors growth factors or an be released in a controlled manner from heparin-binding growth factors systems based on their low affinity for heparin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALQFVCGDRGFYPNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 385; DB 4;
100.0%; Pred. No. 2.8e-33;
tive 0; Mismatches 0;
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es 70; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 70 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB35949;
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60

1 GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY

61 CAPLKPAKSA 70 CAPLKPAKSA 70

셤 ò RESULT 21

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The present invention relates to a bifunctional molecule comprising an antibody or its antigen-binding portion, and a targetting agent where the antibody portifically binds to an antigen in a protein that binds to avointed in a protein that binds to avointegrain, and the targetting agent specifically binds to a cell surface protein that activates the phosphatidylinositol 3 (PI3K) signalling protein that activates the phosphatidylinositol 3 (PI3K) signalling avointed adenoviral (Ad) vector-mediated gene delivery, to cells lacking avointegrins, for enhancing Ad binding and internalisation, and in gene avointegrins, for enhancing Ad binding and internalisation, and in gene permit targetting of viral and bacterial vectors to cells that express targetted receptors. Diseases that can be targetted include cancers, vascular disorders, diabetic retinopathies, restenosis, ophthalmic disorders, hyperproliferative disorders, and hormonal disorders. The present sequence is human mature insulin-like growth factor i (IGF-1) which is used to generate fusion protein used in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New bifunctional molecules comprising an antibody or its antigen-binding portion, and a targeting agent, useful for e.g. gene therapy, or for promoting Adenoviral vector-mediated gene delivery to cells lacking av
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 385; DB 5; Length 70;
Best Local Similarity 100.0%; Pred. No. 2.8e-33;
Matches 70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                               (NOVS ) NOVARTIS AG.
(NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
(SCRI ) SCRIPPS RES INST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 15; Page 97; 106pp; English.
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                                                                                                                                                            09-JUL-2001; 2001WO-EP007878.
                                                                                                                                                                                                             10-JUL-2000; 2000US-00613017
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                                                 WO200204522-A2
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Homo sapiens.
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                                                                                                        17-JAN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention relates to a matrix comprising a substrate capable of providing attachment of a heparin binding peptide (HBF), a peptide comprising a binding domain which binds heparin with high affinity, heparin or heparin-like polymer, and a protein growth factor or peptide fragment which has a domain that binds heparin with low affinity.

Included in the invention is a vascular graft comprising the matrix, in the invention is a vascular graft comprising the matrix, which is capable of supporting cell adhesion. The matrix is used for delivering low heparin binding affinity growth factor proteins or peptides in a controlled manner suitable for wound healing. The matrix can be used in an article for treating dermal wounds, and in an implantable sterilized composition capable of supporting cell adhesion. The present sequence represents a growth factor protein. The protein is used in an example illustrating that non-heparin-binding growth factors can be released in a controlled manner from heparin-binding growth factors systems based on their low affinity for heparin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matrix for controlled release of growth factor for wound healing, has substrate that attaches heparin binding peptide, protein growth factor that bind heparin with low affinity, and heparin or heparin-like polymer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, bifunctional molecule, monoclonal antibody, gene therapy, cancer, vascular disorder, diabetic retinopathy; restenosis, ophthalmic disorder, hyperproliferative disorder, hormonal disorder; cytostatic, vasotropic; ophthalmological; insulin-like growth factor 1; IGF-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                           Heparin binding; vascular graft; matrix; cell adhesion; growth factor; wound healing; dermal wound; wound healing; IGF-1B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 385; DB 4; Length 70; Best Local Similarity 100.0%; Pred. No. 2.8e-33; Matches 70; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Page 21; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE18374 standard; peptide; 70 AA.
                                                                                                                                                                                                                                                                                                                                                                                                             (STHZ-) ETH ZURICH & UNIV ZURICH.
                                                                                                                                                                                                                                                                                                 99WO-IB000800.
                                                                                                                                                                                                                                                                                                                                                      99WO-IB000800
  IGF-1B amino acid sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sakiyama SE, Hubbell JA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-024627/03.
                                                                                                                                                                                         WO200064481-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 70 AA;
                                                                                                                                        Unidentified.
                                                                                                                                                                                                                                                                                                                                                        22-APR-1999;
                                                                                                                                                                                                                                                                                                    22-APR-1999;
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AAE18374;

RESULT 23 AAE18374

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New nutritionally enhanced food compositions, useful for improving infant formula, or supplementing or enhancing the diet of infants, particularly very-low birth weight infants.
                                                                                    Improved feed for production animals, comprising plant-derived feed ingredients, and seed composition containing flour, extract, or malt from mature monocot seeds and heterologous seed-produced anti-microbial
                                                                                                                                                                                               The invention relates to improved feed for production animals, comprising one or more plant-derived feed ingredients, substantially unsupplemented with small-molecule annibiotics and as an additive a seed composition containing a flour, extract or malt obtained from mature monocot seeds and one or more heterologous seed-produced anti- microbial proteins in substantially unpurified form. The invention is useful as a feed for production animals such as poultry and hoofed farm animals. The present sequence is human codon optimised insulin- like growth factor 1 (IGF). This sequence is used in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLENY
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          plant-derived food; flour; malt; monocot seed; milk protein; formula; insulin growth factor; IGF-1.
                                                                                                                                                                                                                                                                                                                                                                                            Length 70;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human codon optimised insulin growth factor (IGF-1).
                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 385; DB 5;
100.0%; Pred. No. 2.8e-33;
tive 0; Mismatches 0;
                                                                                                                                                                    Disclosure; Fig 24; 175pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE28004 standard; protein; 70 AA.
             Hagie FE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-FEB-2002; 2002WO-US004921
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02-MAY-2001; 2001US-00847232.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-DEC-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
               RL,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70
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N-PSDB; AAD44954.
               Rodriguez
                                           WPI; 2002-682708/73.
N-PSDB; AAD45352.
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                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 70; Conserv
                                                                                                                                                                                                                                                                                                                                                               Sequence 70 AA;
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             Huang N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAE28004;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                             The present invention relates to a method for treating cartilage disorders. The method comprises contacting cartilage with an active agent such as insulin-like growth factor (IGF-1) analog with a binding affinity preference for IGF binding protein-3 (IGFBP-3) over IGFBP-1, an IGF-1 analog with a binding affinity preference for IGFBP-1 over IGFBP-3 or IGFBP displacer peptide that prevents the interaction of IGF with an IGFBP and does not bind to human IGF receptor. The method is useful for treating cartilage disorders (CD), including degenerative CD, articular CD such as rheumatoid arthritis and osteoarthritis. The present sequence is human IGF-1, which was used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, feed improvement, plant-derived feed, antibiotic, additive,
anti-microbial, poultry, insulin-like growth factor 1, flour, malt, IGF.
                                                                                                                                                                                                                   Treating cartilage disorders including cartilage damage by injury or degenerative cartilagenous disorders, by contacting cartilage with insulin-like growth factor analog with altered affinity for IGF-binding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 385; DB 5;
100.0%; Pred. No. 2.8e-33;
cive 0; Mismatches 0;
                                                                                                                                                           Lowman HB;
                                                                                                                                                                                                                                                                                                    Disclosure, Fig 16; 136pp; English
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02-MAY-2001; 2001US-00847232
                                               16-MAY-2001; 2001WO-US015904.
                                                                            16-MAY-2000; 2000US-0204490P.
15-NOV-2000; 2000US-0248985P.
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                                                                                                                                                           Dubaquie Y, Filvaroff EH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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Best Local Similarity 100.
Matches 70; Conservative
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                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                        WPI; 2002-082942/11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
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                    22-NOV-2001
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                         The invention relates to a nutritionally enhanced food comprising one or more plant-derived food ingredients, and as an additive, a seed composition contenting a flour, extract, or malt obtained from mature monocot seeds and one or more seed-produced human milk proteins in substantially unpurified form. The nutritionally enhanced food and food additive compositions are useful for improving infant formula. Infant formulas containing the recombinant human milk proteins are useful in supplementing or enhancing the diet of infants, particularly very-low birth weight infants. The present sequence is human insulin growth factor
                                                                                                                                                                                                                                                                                                                                                                                                             IGP-1; insulin; human; crystal structure; antidiabetic; anorectic; insulin-like growth factor; cardiant; anti-HIV; immunostimulant; AIDS; IGP-1 receptor-binding region; diabetes; obesity; heart dysfunction; acquired immunodeficiency syndrome; wasting; kidney disorder; necrosis; neurological disorder; whole body growth disorder; Turner's syndrome; immunological disorder; insulin resistance; protein coordinate data.
                                                                                                                                                                                                                        1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                           1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                       Gaps
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                                                                                                                                                                100.0%; Score 385; DB 5; Length 70; 100.0%; Pred. No. 2.8e-33; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note= "IGFBP-1 and IGFBP-3 binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note= "IGFBP-1 and IGFBP-3 binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "IGFBP-1 and IGFBP-3 binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "IGFBP-1 and IGFBP-3 binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bite"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "IGF-1 receptor binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note= "IGF-1 receptor binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "IGFBP-1 and IGFBP-3 binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "IGFBP-1 and IGFBP-3 binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note= "IGFBP-1 and IGFBP-3 binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "IGF-1 receptor binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .ocation/Qualifiers
           Example 6; Fig 24; 179pp; English.
                                                                                                                                                                                                                                                                                                                               AAB71497 standard; protein; 70 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ...28
/label= A_chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19. .41
|abel= B_chain
                                                                                                                                                                                                                                                                                                                                                                                            Human IGF-1 protein fragment.
                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                          'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note=
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                                                                                                                                                                                                                                                      61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                          61 CAPLKPAKSA 70
                                                                                                                           IGF-1) native DNA
                                                                                                                                                 Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                   AAB71497;
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Region
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                                                                                                                                                                                                                                                                                                          RESULT 27
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This invention describes a novel crystal formed by insulin-like growth factor-1 (IGF-1) that diffracts X-ray radiation to produce a diffraction factor-1 (IGF-1) that diffracts X-ray radiation to produce a diffraction contact the invention have antidiabetic, anorectic, cardiant, anti-fix dimmunostimulant activity. The novel crystal includes an IGF-1 receptor-binding region, useful for identifying compounds having compounds that interact with the receptor-binding region of the 3-D structure of IGF-1 and function as an IGF-1 agonist or antagonist. Compositions utilising the novel crystal structure are useful for reating a mammal, especially human suffering from a disorder such as diabetes; obesity, heart dysfunction, acquired immunodeficiency syndrome of AIDS-related wasting, kidney disorders, Turner's syndrome, body growth disorder, immunological disorders. Turner's syndrome, consistance and necrosis. Crystalline IGF-1 is useful for computationally constrained in a chemical entities that bind to or associate with IGP-1, and for altering changes and sout its association with a binding site of IGF-1, for designing chemical entities that bind to or associate with IGP-1, and for altering solving the crystal structures of mutante, co-complexes, or crystalline control in a control of IGF-1. The crystal structures of mutante, co-complexes, or crystalline control in a control of IGF-1. If of esigning a compound that minds the 3-dimensional surface contagonsing setting, for e.g. as a molecular weight marker or EILSA, radioreceptor assay control and studying binding properties of IGF-1, IGFBPB and IGF-1 receptors. This sequence represents the human control in the disclosure of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Crystal formed by insulin-like growth factor-1, IGF-1, useful for treating agonist disorders, diffracts x-ray radiation to produce a diffraction pattern representing the three-dimensional structure of IGF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                       note= "IGFBP-1 and IGFBP-3 binding site"
                                                                                                                                                                                                                                                              'note= "IGFBP-1 and IGFBP-3 binding site"
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                                                                                                                             "IGF-1 receptor binding site"
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100.0%; Pred. No. 2.8e-33;
iive 0; Mismatches 0;
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                                                                                                                                                                                                   /label= D_region
'label= C chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vajdos
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-FEB-2001; 2001US-0267977P 27-APR-2001; 2001US-0287072P
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Query Match
Best Local Similarity 100...
Best Local Similarity 100...
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70
                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAPLKPAKSA
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                                                                                                                                                                                                                                                                                                                                               WO200264627-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Schaffer M,
                                    Binding-site
                                                                                                                                                                                                                                            Binding-site
                                                                                                   Binding-site
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                                                                                                                                                                         Region
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Cytostatic, antidiabetic, neuroprotective, cerebroprotective, ophthalmological; insulin, receptor, gene therapy; diabetes; insulin-like growth factor-1; IGF-1; tumour; prostate; breast; diabetic retinopathy; neurological diseases; stroke; diabetic neuropathy.

Insulin/insulin-like growth factor receptor-binding peptide #2737.

18-JUN-2002 (first entry)

standard; peptide; 70 AA.

AAU90781 AAU90781;

RESULT 29

61 CAPLKPAKSA 70

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61 CAPLKPAKSA 70

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The present invention relates to a bifunctional molecule comprising an antibody or its antigen-binding portion, and a targeting agent. The antibody specifically binds to an antigen in a protein that binds to alpha integrin, and the targeting agent specifically binds to a cell surface protein that activates the phosphatidylinositol-3-OH kinase (PI3K) signalling pathway. The bifunctional molecules are useful for targeted gene therapy using targeting delivery vectors, such as adenoviral gene delivery particles. The bifunctional molecules are useful for treating viral infections, rheumatoid arthritis, cancers, cardiovascular disorders, diabetic retinopathies, restenosis, ophthalmic disorders, hyperproliferative disorders, and hormonal disorders. The present sequence represents mature human insulin-like growth factor-1 (IGF-1). It is used to prepare a fusion protein with mouse DAV-1 antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New bifunctional molecules comprising an antibody or its antigen-binding portion, and a targeting agent, useful for e.g. gene therapy, or for promoting Adenoviral vector-mediated gene delivery to cells lacking av
                                                                                                                                                                    Human; bifunctional molecule; antigen-binding portion; alpha integrin;
cell surface protein; phosphatidylinositol-3-OH kinase; PI3K;
signalling pathway; targeted gene therapy; delivery vector;
adenoviral gene delivery particle; viral infection; cancer;
rheumatoid arthritis; cardiovascular disorder; diabetic retinopathy;
restenosis; ophthalmic disorder; hyperproliferative disorder;
hormmonal disorder; virucide; antiinflammatory; antirheumatic;
antiarthritic; ophthalmological; DAV-1 antibody; IGF-1;
insulin-like growth factor-1.
                                                                                                                                                    Human full length mature IGF-1 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 37; 49pp; English.
                                   ABG76349 standard; protein; 70 AA.
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                                                                                                              (first entry)
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                                                                                                              10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUL-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      integrins
                                                                           ABG76349;
RESULT 28
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The invention relates to a method of modulating insulin activity in mammalian cells by administering a peptide that binds the insulin receptor (IR). A composition containing a peptide, optionally expressed from gene therapy vectors, that binds to Site I of IR and an insulin agonist are useful for treating diabetes. Also, peptides that are useful for treating insulin-like growth factor (IGF)-sensitive tumours (e.g. of prostate and breast) and diabetic retinopathy, while IGF-1 receptor agonists are useful for treating neurological diseases, including stroke and diabetic neuropathy. The peptides are also useful in screening for compounds that bind to IR or IGF-1 receptor, potential therapeutics and research reagents. AAUS8034-AAU90957 represent IR and/or including peptides and related amino acid sequences of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 18; 390pp; English.
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AAU90781

AAU907
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or

Pillutla R, Brandt J; Ostergaard S, Mandecki WS;

Beasley J, Blume AJ, Schaeffer L, Brissette R, Spetzler J, Cheng W, Hansen PH, Ravera M, Hslao K;

WPI; 2002-025774/03.

(DGIB-) DGI BIOTECHNOLOGIES LLC. (NOVO) NOVO NORDISK AS.

29-MAR-2000; 2000WO-US008528. 29-MAR-2000; 2000WO-US008528.

WO200172771-A2 04-OCT-2001

Synthetic.

Modulating insulin activity in mammalian cells, for treating e.g. diabetes and tumors, comprises using peptides that bind to insulin insulin-like growth factor receptors.

9 9

100.0%; Score 385; DB 5; Length 70; 100.0%; Pred. No. 2.8e-33; tive 0; Mismatches 0; Indels

Query Match
Best Local Similarity
Local Similarity
Set To; Conservative
To; Conservative

70

61 CAPLKPAKSA

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RESULT 30 AA016314

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                                                                                                                                                                                                                                                              The IGF-1 can be obtained easily and in appreciable amounts for use in the production of antibodies and in biological studies, etc. See also AANSO537-39 and AAP50873
                                                                                                                                                                                                                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         plasmids contg. cytomegalovirus immediate early promoter - used to express and secrete mammalian proteins in biologically active form.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       h-IGF can be expressed by transformant mouse fibroblasts carrying plasmid in which the synthetic gene is placed under the control of
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                                                                                                                                                                                  Prodn. of human insulin-like growth factor - by cultivation transformant microorganism including recombinant plasmid.
                                                                                                                                                                                                                                                                                                                                                             Length 71;
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                       Holmgren E;
                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 385; DB 1;
100.0%; Pred. No. 2.8e-33;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human insulin growth factor (h-1GF); pCMV-bGHb; cytomegalovirus immediate early promoter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic human insulin growth factor (h-IGF).
                                                                                                       Heden LO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page ?; 15pp; English.
                                                                                                         Josephson S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP81203 standard; protein; 71 AA
                                                                                                                                                                                                                                     Disclosure, Fig 1; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87EP-00308484.
             84EP-00850197
                                            83SE-00003626
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                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
hes 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bayne ML, Kopchick JJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MERI ) MERCK & CO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAPLKPAKSA 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1988-121149/18.
N-PSDB; AAN81557.
                                                                                                                                       WPI; 1985-008094/02.
                                                                                                         Elmblad A, Palm G,
                                                                            (KABI ) KABIGEN AB
                                                                                                                                                          N-PSDB; AAN50536
                                                                                                                                                                                                                                                                                                                                  Sequence 71 AA;
             20-JUN-1984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1986;
                                             23-JUN-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-MAY-1988.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAP81203;
                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAP81203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X#X#X#X#X#X#X##X
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention comprises a crystal for X-ray diffraction, the crystal is complex of insulin-like growth factor (IGF) I or II and a region of an insulin-like growth factor binding protein (IGFBP). The crystal of the invention is useful for X-ray diffraction. The present amino acid sequence represents an IGF-I protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New crystal comprising a complex of insulin-like growth factor IGF I or II and a polypeptide, useful for X-ray diffraction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPETLCGAELVDALQEVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                        Crystal, X-ray diffraction, IGF-I; IGFBP; insulin-like growth factor; insulin-like growth factor binding protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insulin-like growth factor; hormone; recombinant plasmid; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 385; DB 6; Length 70; 100.0%; Pred. No. 2.8e-33; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                     Lang K;
                                                                                                                                                                                                                                                                                                                                                                                                     Huber R,
                                                                                                                             Insulin-like growth factor I (IGF-I) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic human insulin-like growth factor.
                                                                                                                                                                                                                                                                                                                                                                                               Beisel H, Demuth D, Engh R, Holak T,
Schumacher R, Zeslawski W;
                                                                                                                                                                                                                                                                                                                                                                      (HOFF ) HOFFMANN LA ROCHE & CO AG F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAP50872 standard; protein; 71 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 1A; 71pp; English.
                                   AAO16314 standard; protein; 70 AA.
                                                                                                                                                                                                                                                                                                         05-JUN-2002; 2002WO-EP006161
                                                                                                                                                                                                                                                                                                                                         07-JUN-2001; 2001EP-00112958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-DEC-1991 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100...
And 70; Conservative
                                                                                                  (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-140589/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 70 AA;
                                                                                                                                                                                                                                               WO200298914-A2.
                                                                                                                                                                                                               Unidentified
                                                                                                20-MAR-2003
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                                                                                                                                                                                                                                                                              12-DEC-2002
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RESULT 31

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Authentically folded, biologically active IGF-1 can be produced by transformant yeast. Expression of the IGF-1 coding sequence is controlled by a promoter from a methanol-responsive gene of methylotrophic yeast. The mature IGF-1 is secreted as a fusion protein; IGF-1 is fused to an appropriate signal peptide via one or more processing sites which are recognised by methylotrophic yeast proteases. See also AAQ23300-2. (Updated on 25-WAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; insulin-like growth factor 1; IGF-1; neuronal damage prevention;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                   Insulin-like growth factor-1; alpha-mating factor; prepro; region;
Pichia pastoris; yeast; site-directed mutagenesis; spacer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prodn. of insulin-like growth factor 1 - using DNA constructs in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 385; DB 2; Length 71;
100.0%; Pred. No. 2.8e-33;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gleeson MA, Howard
                                                                                                                                                                                                                                                                                                                                                                                                                                                          IND AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human insulin-like growth factor 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAG62611 standard; protein; 71 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 1; 100pp; English.
                                                                                 AAR21709 standard; protein; 71 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SALK ) SALK INST BIOTECHNOLOGY
                                                                                                                                                                                                     Insulin-like Growth Factor-1.
                                                                                                                                                                                                                                                                                                                                                                                         91WO-US006452.
                                                                                                                                                                                                                                                                                                                                                                                                                        90US-00578728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                methylotrophic yeast cells.
                                                                                                                                                    (revised)
(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Davis GR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CAPLKPAKSA 70
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CAPLKPAKSA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 71 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brierley RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                         04-SEP-1991;
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                                                                                                                                                    25-MAR-2003
17-AUG-1992
                                                                                                                                                                                                                                                                                                                        WO9204363-A.
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                                                                                                                                                                                                                                                                                          Synthetic.
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 62
                                                                                                                   AAR21709;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The method of producing its DNA is claimed. It can be used as a drug, an enzyme and a synthetic vaccine. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Altering sequence of native double stranded DNA of structural genes - to produce hybrid gene, including synthetic oligo-nucleotide cassette, e.g. encoding human pancreatic growth hormone-releasing factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                          2 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 61
   cytomegalovirus immediate early (CMV-IE) promoter. The protein is secreted into the culture medium in biologically active form without the need for any additional biological or chemical processing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amino acid sequence of Insulin-like growth factor encoded by synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 GPETL/CGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                        1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                           Gaps
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                                                                                                       Length 71;
                                                                                                                                         Indels
                                                                                                       100.0%; Score 385; DB 1;
100.0%; Pred. No. 2.8e-33;
vative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insulin growth factor 1 analogue; somatomedin-C.
                                                                                                                                                                                                                                                                                                                                                              AAR05281 standard; protein; 71 AA.
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                                                                                            CAPLKPAKSA 70
                                                                                                                                                                                                                                              61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                      62 CAPLKPAKSA 71
                                                                                                                                                                                                                                                                                                                                                                                                                                   (revised)
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N-PSDB; AAQ03403.
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                                                                          Sequence 71 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-MAR-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-FEB-1984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-AUG-1990
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Gaps

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The expression vector pHT.hBGF.R.X comprises the erythromycin resistance gene, a bacterial protein secretion coding sequence, a sequence coding for hBGF, a protease recognition sequence (R) and a sequence coding for a desired heterologous protein (K). The vector is used to transform Bacillus brevis hosts for recombinant production of the heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Prepn. of insulin-like growth factor 1 (IGF-1)films - by E. coli transformant contg. improved expression vector, expressing fusion protein cleavable with enterokinase to give TgF-1.
                                                                             pHT.hEGF.R.X and microorganism contg. it - is useful
foreign gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Insulin-like growth factor; fusion protein; hydroxylamine; recognition site; beta-galactosidase; diabetes; cleavage.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 385; DB 2; Best Local Similarity 100.0%; Pred. No. 2.9e-33; Matches 70; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hoon KY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'note= "N-terminal portion"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Young IS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5. .74
/label= mature_IGF-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 6; Page 14-15; 36pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beta-gal/IGF-1 fusion protein (II).
                                                                                                                                                                       Example 1; Fig 13; 17pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR13759 standard; protein; 74 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'label= beta-gal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAPLKPAKSA 70
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N-PSDB; AAQ13569.
WPI; 1994-329004/41.
N-PSDB; AAQ77682.
                                                                                                                                                                                                                                                                                                                                                                   protein, e.g. IGF-1
                                                                                   Expression vector for expression of
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 72 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAR-2003
21-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-SEP-1991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GB2241703-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR13759;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR13759
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes a method of preventing or treating neuronal damage following a central nervous system insult, involving modulating the cerebral temperature and administering a neurologic therapeutic agent. The agent may be a growth factor, such as fibroblast growth factor (FGF) or insulin-like growth factor (IGF). The method is particularly useful in the treatment of ischaemia cerebrovascular disease. The present sequence is the human IGF protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Preventing or treating neuronal damage of the central nervous system, comprises modulating the cerebral temperature and administering a neurological therapeutic agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
  central nervous system insult; hypothermia; neuroprotective; ischaemia cerebrovascular disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IGF-1; insulin-like growth factor; recombinant production; expression vector pHT-hEGF-R-X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 385; DB 4;
100.0%; Pred. No. 2.8e-33;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR63194 standard; protein; 72 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 6; Page 40; 41pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                     Gunn AJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insulin-like growth factor-1.
                                                                                                                                                                                                                                                              26-OCT-2000; 2000WO-US041591.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93JP-00062455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93JP-00062455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HGET ) HIGETA SHOYU KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAPLKPAKSA 71
                                                                                                                                                                                                                                                                                                                                                                                                                                     Guan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
---- 70; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-355748/37.
                                                                                                                                                                                                                                                                                                                                                                            (CHIR ) CHIRON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 71 AA;
                                                                                                                                                  WO200137855-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JP06253862-A.
                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Gluckman PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-1993;
                                                                                                                                                                                                                                                                                                                      27-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-SEP-1994
                                                                                                                                                                                                        31-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR63194;
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AAR63194
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셤 ઠે

Page 5; 30pp; English.

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IGF-1 is expressed in the form of a fusion protein with betagalactosidase. Since the DNA sequence corresp. to amino acid sequence Asnorly, which is the hydroxylamine cleavage site, is present in the portion of the DNA sequence linking beta-galactosidase with IGF-1 protein, the treatment of the expressed beta-gal/IGF-1 fusion protein with hydroxylamine permits the isolation of only the IGF-1 protein. The hydroxylamine permits the isolation of only the IGF-1 protein. The protein method produces IGF-1 in high yield using a simple procedure. IGF-1 can be used for controlling the blood glucose level in diabetic patients who cannot be treated with insulin, for local treatment of bone fracture and for treating congenitated or acquired growth failure patients. The hydroxylamine method (and the enzymatic method - see AAQ13568) used for cleavage of the fusion protein is more precise than the prior art use of CNBT. (Updated on 10-MAR-2003 to add missing OS field.)
                                                                                                                                                                                                                                                                                                                                                          1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Prodn. of human IGF in unicellular host cells, used as a biologically active medicament - by joining IGF genes to a secretory leader and processing signal sequences recognised by host then introducing vector into cells for growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human, insulin-like growth factor; hIGF-I; reading frame;
secretory signal; transcription; regulation; Vector; host cell; yeast;
IGF-II; "pre"-IGF.
                                                                                                                                                                                                                                                                                                                                                                                         5 GPETLICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                        Length 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Barr PJ, Merryweather JP, Mullenbach G, Urdea MS;
                                                                                                                                                                                                                                                                                    100.0%; Score 385; DB 2;
100.0%; Pred. No. 2.9e-33;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note= "Pre-peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR41776 standard; protein; 75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83US-00487950
84EP-00104175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93EP-00101654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (revised)
(first entry)
                                                                                                                                                                                                                                                                                                        Local Similarity 100.
nes 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
                                                                                                                                                                                                                                                                                                                                                                                                                              61 CAPLKPAKSA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                            65 CAPLKPAKSA 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1993-296480/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CHIR ) CHIRON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAQ48494.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified hIGF-I.
                                                                                                                                                                                                                                                        Sequence 74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-APR-1984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-APR-1983;
13-APR-1984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2003
25-MAR-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAR41776;
                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein
                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 38
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×88888888888888888888888
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This sequence represents a modified human insulin-like growth factor I

(hIGF-I). This sequence also includes a pre-sequence encoded by yeast
prefered codons, as is the rest of the gane. The DNA encoding this
c prefered codons, as is the rest of the gane. The DNA encoding this
c precessing signal sequences recognised by host cells to form a structural
gene downstream from and under the transcriptional regulatory control of
a transcription initiation region in a vector compatible with the chosen
host cells. The prepared vector may be used in the efficient production
of hIGP-I by unicellular host cells, esp. yeast. Mature human IGF-I and
c IGF-II (see also AAQA8492-93) produced in this manner may be used in
medicaments. The synthetic coding sequence, pref. containing host.

preferred codons, is joined in the same reading frame to secretion and
precessing signals which allow "pre-"IGF to be secreted by the host. This
is cilitates purification. (Updated on 25-MAR-2003 to correct PN field.)
(Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                         6 GPETLCGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                        1 GPETLCGAELVDALQFVCGDRGFYFNXPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                         100.0%; Score 385; DB 2; Length 75; 100.0%; Pred. No. 3e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Insulin-like growth factor; fusion protein; enterokinase; recognition site; beta-galactosidase; diabetes; cleavage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sun YM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note= "representing N-terminal portion"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "enterokinase recognition site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hoon KY,
                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Young IS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beta-gal IGF-1 fusion protein (I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR13758 standard; protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   label= beta-gal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               = IGF-1
"mature"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s. .6
/label= linker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91GB-00004524.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Park HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KOSC-) KOREA INST SCI TECH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7. .76
/label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CAPLKPAKSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kwak JW,
                                                                                                                                                                                                                                                                              correct PR field.)
                                                                                                                                                                                                                                                                                                              Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAR-2003
21-NOV-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lee YI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
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AAR13758
g
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transformant contg. improved expression vector, expressing fusion protein cleavable with enterokinase to give TgF-1.

Example 3; Page 11-12; 36pp; English.

IGF-1 is expressed in the form of a fusion protein with betagalactosidase. Since the DNA sequence corresp. to amino acid sequence (Asp) 4-Lys, which is the enzyme enterokinase recognition site, is present in the portion of the DNA sequence linking beta-galactosidase with sprotein, the treatment of the expressed beta-gal/IGF-1 fusion protein with enterokinase permits the isolation of only the IGF-1 protein. The expression method produces IGF-1 in high yield using a simple procedure. IGF-1 can be used for controlling the blood glucose level in diabetic patients who cannot be treated with insulin, for local treatment of bone fracture and for treating congenitate or acquired growth failure patients. The enzymatic method (and hydroxylamine method - see AAQ13569) used for cleavage of the fusion protein is more precise than the prior art use of CNBr. (Updated on 10-MAR-2003 to add missing OS field.)

Sequence 76 AA;

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7 GPETI.CGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                        1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                     0; Gaps
100.0%; Score 385; DB 2; Length 76; 100.0%; Pred. No. 3e-33; tive 0; Mismatches 0; Indels
        Query Match
Best Local Similarity 100.
Matches 70; Conservative
                                                                                                                                                                                                                    61 CAPLKPAKSA 70
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9 99

Search completed: February 25, 2004, 06:22:31 Job time : 55.0949 secs

P81213

AAP81213 standard; protein; 78 AA.

AAP81213;

Insulin-like growth factor-I (Fra-B-11=Fra-A-4). (first entry) 25-MAR-2003 07-DEC-1990

(revised)

Insulin-like growth factor-1; Fra-B-11; Fra-A-4; protease cleavage;
methionine-insulin-like growth factor I; gamma-interferon; linker DNA;
two-cistronic Met-IGF-1 expression vector.

Synthetic.

EP264074-A

20-APR-1988

86JP-00240702 87JP-00255818 09-OCT-1986; 09-OCT-1987;

87EP-00114733

08-OCT-1987;

(FUJI) FUJISAWA PHARM CO LTD

Tadashi Yoshinori I, Ikuo U, Mineo N, Yoshimasa S,

WPI; 1988-106856/16. N-PSDB; AAN81574.

Prepn. of methionine-insulin-like growth factor I - comprises use of

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c A two-cistronic vector functional and replicatable in E. coli, which essentially contains DNA encoding IGF-1 and a protective peptide capable of preventing the callular proteases from decomposing IGF-1 was constructed. The DNA fragment (Fra-A-7) (AANB1580) useful in the construction of the two-cistronic IGF-1 expression vector was prepared as follows. Fras-B-4 (AANB1567) was ligated into the large EcoRI-BamHI restriction site of plasmid pfTpEBT to form pLiktrp encoding trp promoter and LH. IGF-1 encoding gene was prepared by digesting pBR222 with EcoRI and LH. IGF-1 encoding gene was prepared by digesting pBR222 with EcoRI and LH. IGF-1 encoding fragment fragment encoding IGF-1 was isolated and to which fragment was ligated oilgonucleorides mi and m2 to to form pLH36Mmtrp. See also AANB156-82. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68
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recombinant DNA expression vector as transformant in Escherichia coli.
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